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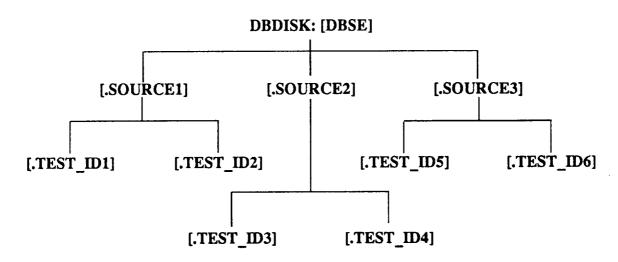
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Section 1 INTRODUCTION

The AFAS Database System was developed to provide the basic structure of a comprehensive database system for the MSFC Structures and Dynamics Laboratory Aerophysics Division. The system is intended to handle all of the Aerophysics Division Test Facilities as well as data from other sources. The system has been written for the DEC VAX family of computers in FORTRAN -77 and utilizes the VMS indexed file system and screen management routines.

The database system recognizes three levels of interface to the system: the Database Manager who has overall system control, the Test Engineer who is responsible for the entry and validation of the data, and the User who accesses the data. Two types of test data are maintained: measured data with filenames using an "M" suffix, and engineering data with file names using an "E" suffix. The measured files contain test data. The engineering files contain data that have been reduced or manipulated by the Test Engineer.

The database directory structure has a root level directory with subdirectories representing each data source (facility). Each source directory contains subdirectories corresponding to specific tests. The directory tree structure is illustrated below.



At the highest directory level the system provides an index file to all tests available on the system. The directory for each test may contain a number of informational files. The four basic files involved in the stored data structure are: the VALUE file, LABEL file, the SET file, and the CHANGE LOG file.

The VALUE file stores test data as a matrix which can be visualized as columns representing measurements (or test parameters) and rows representing test conditions. The data values are stored in an indexed file using the data label describing the

measurement as the record key. The desired test condition is located by an offset in each record.

The LABEL file contains a record for each data label. Information in the record defines characteristics of the measured data values corresponding to the label. The purpose of this record is to provide the system and the user with information about the measurement. The structure of the label file record is defined by a PARAMETER file. This allows the Database Manager to specify field names and field lengths to be used for measurement description on a particular test. There are five required fields in the PARAMETER file: the key field ENGR_LABEL, which is an all uppercase representation of the data label; CASE_LABEL, which is the character representation of the label as the user will see it; DATATYPE which determines the data type of the label data; FLDLEN, which determines the data field length; DATA_SEGMENT used to tag the data retrieval path. Other optional fields might include: a short descriptor for the measurement, units for the measurement, or geometry values locating the measurement.

The SET file contains groupings of data labels which are desired for applications such as plotting of geometrically related data and sequencing of input data. This is an indexed file using the set name as the key. The set name is followed in the record by the X, Y, and Z parameter names. The balance of the record consists of fields of data label names and their associated X, Y, and Z parameter values.

The CHANGE LOG contains a history of modifications made to the VALUE file data. This is an indexed file using the data label as the key. A log entry consists of a data label and offset to determine the cell position, the original cell value, the number of modifications made, and, for each modification: the new value, the user name of process that modified the data, the date the cell was modified, and the time the cell was modified. The CHANGE LOG is used to track modifications made to the VALUE file and to retrieve previous values.

The balance of this document contains: a description of the user interface, lists of all code structure elements, descriptions of the file structures, a description of the security system operation, a detailed description of the data retrieval tasks, a description of the session log, and a description of the archival system.

Section 2 USER INTERFACE

The AFAS Database System uses a menu-driven interface to a network of data files and information files that can provide data on any test in the database. Database access is organized into three levels: Database Manager, Test Engineer, and User. The tasks associated with each level are summarized in Table 2.1.

When a user accesses the database system a top level menu (Table 2.2) lists the options for which the user is privileged. The User level functions are available to all users, but the database manager functions are not available to the Test Engineer or User access levels. Each of the options presented in the top level menu represent a separate executable file. There are a number of key functions that are common to all menus and may not be listed on the display due to space restrictions. Table 2.3 lists the universal key functions.

The user may obtain on-line help by entering "?" at any point where the system is requesting input. The information pertaining to the current option will be displayed on the screen. While viewing the on-line help, the user may obtain help information from subsequent option levels by typing the desired level option. A list of additional help items, if available, is displayed at the bottom of the help screen. The user exits the help facility by entering CNTRL/K. A CNTRL/K is entered by striking the "Ctrl" and "K" keys simultaneously.

Table 2.1: Database System Main Menu

To gain access to the database system enter "DBS." This will display the database options menu. The menu options vary according to the privilege assigned to the user gaining access. The complete menu contains the following options.

M — Management ServicesE — Test Engineer Tasks

A — Archival Tasks

R — Test Data Load/Retrieval

T — View Data Table

V — View Reports
Select — Select/Browse Available Tests

Q — Quit

Option	Description
M	Executes the Database Manager Tasks.
E	Executes the Test Engineer Tasks.
Α	Executes the Data Archival Tasks.
R	Executes the Data Retrieval Tasks which enable a user to create RS/1 compatible data files from the test data in the database.
T	Allows the user to view the VALUE file for the currently selected test.
V	Allows the user to view the available reports for the currently selected test.
Select	Allows the user to view a list of tests available on the system and to select one of these tests as the current test.
Q	Exits the AFAS Database System and returns control to the DCL environment.

Table 2.2: Database Function Summary

Database Manager Functions

- Maintain the database index file describing all tests in the system.
- Create parameter files which specify fields to be used in describing Labels.
- Create and load the "engineering" files.
- · Remove invalid data from value files.
- · Control archival of test data.
- Maintain database system security.
- Install text files for reports.

Test Engineer Functions

- Create and maintain the Label file of unique labels with descriptive information.
- Create and maintain the Set file to be used for associating plotting groups and specifying input formats.
- Mark invalid data in the value file.
- Rebuild the value file as necessary to maintain proper organization.
- Enter measured data into the value file.
- Prepare engineering data in RS/1 Tables which the Database Manager can load into the engineering value file.

User Level Functions

- Begin a new session or continue a previous data retrieval session by specifying the previous session name.
- View all data or a data summary to determine the data of interest.
- Select data by entering data labels and/or sets, or select the labels and sets from scrolled lists. The user may restrict the data retrieved for a label by entering ranges or requesting that data cells that do not have valid data be removed.
- Select output. The user has the option of creating a printed report of the data selected, loading the data into BBN RS/1 tables, creating meta-files, or storing the retrieval session in a session log.

Table 2.3: Universal Key Functions

Key Sequence Result

CNTRL/K Exit current menu.

CNTRL/E Exit program.

"PF4" Erase input field from cursor to end of field.

Left Arrow Move left in input field.

Right Arrow Move right in input field

"?" Display help for current item or screen.

Notes: CNTRL/E may not be implemented at points where a valid input is necessary

Help may not be available where spawned tasks do not allow for trapping the "?" character.

Section 3 CODE STRUCTURE

The Database System is comprised of eight executable code sections. The source code for each section resides in a subdirectory of the directory DB-DISK:[DBSE.SOURCE]. All routines common to two or more code sections reside in the library directory DBDISK:[DBSE.SOURCE.LIBRARY]. Table 3.1 lists the code sections and briefly describes each. A complete listing of all routines in the database system is provided in Appendix A. A listing of the arguments passed to each routine is provided in Appendix B.

A "make" facility has been provided to build the executable files when changes have been made to the source code. A make file has been provided for each executable file. The make files reside in the source directories and are named <executable_file>.MAK, where <executable_file> is the name of the executable. The files <executable_file>.COM and <executable_file>.OPT may also be present in the directory and are part of the make facility. The .COM file contains the link command. The .OPT file will be present whenever the link command in the .COM file exceeds the buffer capacity of the command interpreter (256 characters). The .OPT file will then be used to name the additional modules. After a source file has been modified, the executable is updated by typing "FMAKE <executable_name>". This will process the make file <executable_file>.MAK. Table 3.2 lists the symbol definitions required for database system maintenance. A brief description of the .MAK, .COM, and .OPT files follows.

<executable_file>.MAK

This file contains the commands for the make facility. The make facility looks at the target file date and checks the dependent file dates to see if any of the dependent files have later dates. If a dependent file date is more recent than the target file the next DCL command in the .MAK file is executed. If the date of the target file is the more recent the next DCL command in the .MAK file is skipped. The target files in the .MAK files are designated by the line "\$!=<file_name>". The dependent files are designated by "\$!><file_name>". The following is an example .MAK file that compiles and links the file TEST.FOR.

\$!=TEST.OBJ \$!>TEST.FOR \$!>TEST.INC \$ FOR TEST \$! \$! Comment fine \$! \$!=TEST.EXE \$!>TEST.OBJ \$ LINK TEST

<executable_file>.COM

This file contains the link command to build the executable file. This file is executed from within the .MAK file

<executable_file>.OPT

This file contains the link options for the link command. This file is specified in the .COM file. An options file will be present whenever the link command exceeded the buffer capacity of the command interpreter (256 characters).

Table 3.1: Database Code Sections

Code Section	Directory	Description
DBS_MGR	[DBS_MGR	Database Manager source and executable.
DBS_DAT	[DBS_DAT]	Test Engineer source and executable.
ARCHIVE	[ARCHIVE]	Archival system source and executable.
USER	[USER]	User source and executable.
DB_EDIT	[DB_EDIT]	Tabled data display source and executable.
REPORTS	[REPORTS]	Report viewer source and executable.
BROWSER	[BROWSER]	Available tests browser source and executable.
DBS_LBR	[DBS_LBR]	Source files for library routines.
MAIN_MENU	[MAIN_MENU]	Main menu source and executable.

NOTE: [...<directory>] indicates that the directory resides under the parent directory DBDISK:[DBSE.SOURCE].

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Table 3.2: Symbols and Logicals Used by Database

The AFAS Database System uses several logical and symbol definitions to locate the necessary files. DBDISK and DBS are required by all users. The remaining symbols and logicals are required for maintaining the code.

DBS == "@DBDISK:[DBSE.SOURCE.MAIN_MENU]MAIN_MENU"
FMAKE == "\$DBDISK:[DBSE.SOURCE.MAKE]FMAKE"

DEFINE DBDISK <disk containing source code>
DEFINE INCLUDES DBDISK:[DBSE.SOURCE.INCLUDES]

DEFINE DBS_LBR DBDISK:[DBSE.SOURCE.DBS_LBR]

DBS_EDITOR == <session log editor>

DBS starts the AFAS Database System.

FMAKE executes the make facility.

DBDISK is the AFAS Database System "home" disk.

INCLUDES determines the location of the required include files.

DBS_LBR determines the location of the common subroutines and function.

DBS_EDITOR is a user-defined symbol that should point to the user's editor of preference. The editor should provide full-screen editing capability.

Section 4 FILE STRUCTURES

The AFAS Database System uses several file types to store test data and related information. Table 4.1 provides a list of the files and a brief description of their function. Appendix C describes each file, its record structure, and lists the FDL file and the structure description file, if one is available.

Table 4.1: System Files

· · · · · · · · · · · · · · · · · · ·	
Nomenclature: SOURCE	— Facility or other data source, i.e., TWT.
TEST	— Test identifier, i.e., 0023.
*	 File type suffix: M — measured data E — engineering data
<file></file>	- Denotes user specified path and name.
<session></session>	 Denotes user-specified session name.

File Name and Path in	
The Name and Fath in Description	
DBDISK:[DBSE]	

System Files	
ARCHIVE.HLP	Help file for archival system.
DBS_DAT.HLP	Help file for Test Engineer code section.
DBS_MGR.HLP	Help file for Database Manager code section.
DB_EDIT.HLP	Help file for value file viewer/editor.
DATA_RETRIEVAL.HLF	P Help file for User code section.
ARCH_MASTER.FDL	FDL file used to create master archival file.
CHANGE_LOG.FDL	FDL file used to create change log history files.
SET.FDL	FDL file used to create set files.
TEST.FDL	FDL file used to create test index file.
USER_LOG.FDL	FDL file used to create database user log.
VLU.FDL	FDL file used to create test value files.
ARCH_MASTER.FIL	Archive master file. Contains data archival information

ARCH_MASTER.FIL Archive master file. Contains data archival information.

TEST.IND Test index file. An entry is created for each test in the database.

Test-Specific Files

[.SOURCE.TEST].CHL* Value file change log. All changes made to value file are recorded.

[.SOURCE.TEST].GEO Test geometry description file.

[.SOURCE.TEST].IND* Label index file. Defines available labels for test data storage.

[.SOURCE.TEST].MRP* Contains last offset position in value file.

[.SOURCE.TEST].PRM* Label parameter file. Defines fields associated with the labels in the label index file.

Table 4.1: (Continued) System Files

File Name and Path in DBDISK:[DBSE]	Description
[.SOURCE.TEST].SET*	Data set file. Contains a record for each data set defined for the test.
[.SOURCE.TEST].VLU*	Test data value file. Contains actual test data.
User-Generated Files	
<file>.RS11</file>	Value Table meta file. This is a meta file containing VALUE file data.
<file>.RS12</file>	Set Table meta file. This is a meta file containing SET file data.
<file>.RS13</file>	Label Table meta file. This is a meta file containing LABEL file data.
<session>.XSL</session>	User-created session log. This file enables a user to resume a previous data retrieval session.

Section 5 SECURITY

The AFAS Database System provides three levels of access to the system: Database Manager, Test Engineer and Data-Retrieval User. The VAX system manager must assign identifiers to users requiring access higher than User level. The system manager creates the required identifiers by executing the Authorize utility from the SYS\$SYSTEM directory. The commands for adding the required identifiers are:

UAF>add/identifier DB_MGR UAF>add/identifier DB_TST

The identifier "DB_MGR" is required for a user to gain Database Manager access. The identifier "DB_TST" is required for a user to gain Test Engineer access. The system manager grants a user the required identifier by executing the authorize utility from the SYS\$SYSTEM directory. The commands for granting the identifiers are:

UAF>grant/identifier DB_MGR user1 UAF>grant/identifier DB_TST user2

Where user1 and user2 are valid user names. In the above case "user1" would gain Database Manager privileges while "user2" would gain Test Engineer privileges.

The Database Manager may place restrictions on test data access by "protecting" data for specific tests. The test index file "TEST.IND" contains a record for each test loaded into the database. The "test_prot" field of the test index record is used to restrict User level access to test data. The following algorithm describes the test data protection scheme.

If "test_prot" field of test index record = "P" then

If user holds "DB_MGR" identifier or user holds "DB_TST" identifier or username = "test_engr" field of test index record Then

Access granted.

Else

If username = "test_cntr" field of test index record or user UIC = privileged group Then

Access granted.

Else

If user holds identifier defined in "test_right" field of index record Then

Access granted.

Else

Access denied.

End if

End if

End if

Else

Access granted.

End if

Since Test Engineers have access to all test data, it may be necessary to limit the ability of Test Engineers to modify test data. The following algorithm describes the requirements for test data write access by Test Engineers.

If user does not hold "DB_MGR" identifier Then

If username same as "test_engr" field of test index record Then

Write access granted.

Else

If user holds identifier defined in "test_right" field of index record Then

Write access granted.

Else

Write access denied.

End if

End if

Else

Write access granted.

End if

Section 6 DATA RETRIEVAL

The AFAS Database System provides a means of extracting data from the database in the USER code section (DATA_RETRIEVAL.EXE).

The data selected by the user are stored in two arrays - "sl_label_array" and "sl_relative_pos". The array "sl_label_array" is a list of data LABELS selected by the user. The array "sl_relative_pos" is a list of offsets that will be applied to the VALUE file record for each of the selected labels. There are other arrays that are maintained to enable the user to create or modify the data retrieval session.

When a LABEL is selected by the user, the corresponding VALUE file record is brought into memory. The offsets in "sl_relative_pos" are always applied to the VALUE file record currently in memory. The offsets in "sl_relative_pos" correspond to data cell locations in the VALUE file record. The structure is best described by a simple example.

Given the LABELS RUN, T1, T2

VALUE file records containing:

```
RUN = \{10, 20, 30, 40, 50, 60, 70, 80, 90, 100\}
T1 = \{1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0\}
T2 = \{1.1, 2.2, 3.3, 4.4, 5.5, 6.6, 7.7, 8.8, 9.9, 10.1\}
```

And the arrays:

```
"sl_label_array" = {"RUN", "T1", "T2"}
"sl_relative_pos" = {1, 3, 5, 7, 10}
```

Then the corresponding output table would contain:

```
RUN 10 30 50 70 100
T1 1.0 3.0 5.0 7.0 10.0
T2 1.1 3.3 5.5 7.7 10.1
```

The "sl_relative_pos" array can be restricted by:

- 1. Entering a range or series of ranges for the currently selected label. This will remove offsets in "sl_relative_pos" corresponding to values of the selected LABEL that are out of range.
- 2. Select "valid data only" for the currently selected LABEL. This will remove offsets in "sl_relative_pos" for which the selected label does not have data.
- 3. Combining 1 and 2.

The task which provides the Data Retrieval function (DATA_RETRIEVAL.EXE in the USER code section) needs to be understood thoroughly, so the algorithm for data selection and the corresponding routines are outlined on the following pages.

 Select option "R - Test Data Load/Retrieval" from the database system main menu. This starts the USER code section.

 Select option "D - Select Data" from the USER code main menu. Call UP-DATE_DATA_POINTERS.

Routine UPDATE_DATA_POINTERS:

Call OPEN_DBSE to open the value file for the test selected.

Call OPEN_SET_FILE to open set file for test selected.

Display option menu to user.

Display current number of labels and offsets selected.

Prompt user for menu selection until CNTRL/K entered.

Select option "A - Select LABEL".

Call VIEW LABELS.

Select option "B - Enter LABEL".

Enter label names until CNTRL/K entered.

For each valid label entered call UPDATE_LABEL_POINTERS

• Select option "C - List LABELs selected."

Call LIST_LABELS.

Select option "D - Select SET."

Call VIEW SETS.

Select option "E - Enter SET."

Enter set names until CNTRL/K entered.

For each valid set entered call

UPDATE_SET_POINTERS.

Select option "F - List SETs selected."

Call LIST_SETS.

Select option "G - Edit current session."

Call WRITE_SESSION_FILE to write current session log.

Call EDIT SESSION_FILE.

Close value file.

Close set file.

Return to caller.

End routine UPDATE_DATA_POINTERS.

ROUTINES

```
Routine ADD_UNBOUNDED_LABEL:
    If label not in "sl_label_array"
      Increment si num_labels.
      Load label into "sl_label_array".
      Load "sl_no_range" flag into "sl_lower_bound" array.
      Load "sl_no_range" flag into "sl_upper_bound" array.
      Set "sl ranges(label pos).num_ranges" to zero.
      Set "sl ranges(label_pos).nonulls" to .FALSE.
    End if
    Return to caller.
  End routine ADD_UNBOUNDED_LABEL.
  Routine CVT_TOKEN_ATTR:
    Convert string to appropriate binary data type.
    Load 12_TYPE, I4_TYPE, R4_TYPE, R8_TYPE or string size for
      character data into "type".
    Return to caller.
  End routine CVT TOKEN ATTR.
  Routine EDIT SESSION_FILE:
    Get editor symbol for user-defined editor.
    Spawn edit command.
    Call INIT_SESSION.
    Call READ SESSION_FILE.
    Return to caller.
  End routine EDIT_SESSION_FILE.
  Routine ENTER_BOUND:
    Read input value string.
    Call CVT_TOKEN_ATTR to convert string to proper data type.
    Return to caller.
  End routine ENTER_BOUND.
  Routine ENTER_RANGE:
    While last character of bound value .ne. "+" do
      Prompt user for upper and lower bound values.
      Call ENTER_BOUND.
      Increment "n_bnd".
      Increment "bkt_pos".
    Load "sl_ranges(label_pos).num_ranges" + 1 into "lab_rng".
```

Load "n_bnd" into "sl_ranges(label_pos).num_bnds(lab_rng)".

Load "range_bkt_size" + 1 into

"sl_ranges(label_pos).rng_ptr(lab_rng)".

Load "range_bkt_size" + "n_bnd" into "range_bkt_size".

Load "lab_rng" into "sl_ranges(label_pos).num_ranges".

Return to caller.

End routine ENTER_RANGE.

Routine FINISH_SESSION_FILE_SCAN.

Close session log file.

Return to caller.

End routine FINISH_SESSION_FILE_SCAN.

Routine GET SET_LABELS:

If set name has been loaded previously return to caller.

Increment "sl_num_sets".

Add set name to "sl_set_array" session log common.

For each label in set file call ADD UNBOUNDED_LABEL.

Display current number of labels and offsets selected.

Return to caller.

End routine GET_SET_LABELS.

Routine INITIALIZE_SESSION_FILE_SCAN.

Get LUN for session log file.

Open session log file.

If cannot open session file then free LUN.

Set "scan_cur_pos" to zero.

Set "scan length" to -1.

Set "scan_line_num" to zero.

Return to caller (Return open status).

End routine INITIALIZE_SESSION_FILE_SCAN.

Routine INIT_SESSION:

Set "sl_num_labels" to zero.

Set "si_num_rrefs" to zero.

Set "sl num sets" to zero.

Set "sl init_label" to .TRUE.

Set "range_bkt_size" to zero.

End routine INIT_SESSION.

Routine LIST LABELS:

Display labels and ranges in current session.

Allow scrolling of list.

If an entry is deleted then

```
Remove "sl label array" entry for current label.
    Remove "sl upper bound" entry for current label.
    Remove "sl_lower_bound" entry for current label.
    Remove "sl_ranges" entry for current label.
    Decrement "sl_num_labels".
  End if
End routine LIST_LABELS.
Routine LIST_SETS:
  Display sets in current session.
  Allow scrolling of list.
  If an entry is deleted then
    Remove "sl_set_array" entry for current set.
    Decrement "sl_num_sets".
  End if
End routine LIST_SETS.
Routine PROCESS LABEL:
  Load "sl_upper_bound(label_pos)" and
      "sl lower bound(label_pos)" with appropriate flags or
      range values.
  If label is first label to be processed then
    Build "sl_relative_pos" array for current label and range.
  Else if label range specified
    Set "sl relative pos" array offsets that are out of
       range to zero.
  End if
  Call SHIFT_ARRAY to rid "sl_relative_pos" array of zero
      valued entries.
  If measured data accessed
    Call CHECK_VCOUNT to get rid of any "sl_relative_pos"
        offsets with valid count nonzero.
  End if
  Return to caller.
End routine PROCESS_LABEL.
Routine READ_SESSION_FILE:
  Call INITIALIZE_SESSION_FILE_SCAN.
  Read label from session file.
  Do while labels present in session file.
     If label is not in list call ADD_UNBOUNDED_LABEL.
     Increment "sl ranges(lab).num_ranges".
     Load "sl_ranges(lab).num_ranges" into "rng".
     Set "sl_ranges(lab).num_bnds(rng)" to zero.
```

```
Load "range_bkt_size" + 1 into "sl_ranges(lab).rng_ptr(rng)".
    Do while ranges present for current label.
      Increment "sl_ranges(lab).num_bnds(rng)".
      Load "sl_ranges(lab).num_bnds(rng)" into "bnd".
      Increment "range_bkt_size".
      Store current lower bound string.
      Call CVT TOKEN_ATTR to convert string to proper type.
      If upper bound specified then
        Store current upper bound string.
        Call CVT_TOKEN_ATTR to convert string to proper type.
        Load current lower bound into upper bound.
      End if
    End do
    If current label is initial label call PROCESS LABEL.
    If "valid data only" specified call REMOVE_INVALID_OFFSETS.
 Call FINISH_SESSION_FILE_SCAN.
  Return to caller.
End routine READ_SESSION_FILE.
Routine REMOVE_INVALID_OFFSETS:
  Load "sl_label_array(label_pos)" into "label_id".
  Make sure data for "label_id" is in memory.
  Remove offsets in "sl_relative_pos" that do not have valid data.
  Shift "sl relative pos" array to remove the invalid cells.
  Decrement "sl_num_rrefs" to reflect new "sl_relative_pos" array size.
  Return to caller.
End routine REMOVE_INVALID_OFFSETS.
Routine TOGGLE NONULLS:
  Set "sl_ranges(label_pos).nonulls" to logical opposite.
  Return to caller.
End routine TOGGLE_NONULLS.
Routine UPDATE LABEL_POINTERS:
  If wildcard character in label name
    For each label matching wildcard search call ADD_UNBOUNDED_LABEL
  Else
```

Call ADD_UNBOUNDED_LABEL.

Prompt user for range specification.

If range specified call ENTER_RANGE.

If "Valid Data Only" is specified call TOGGLE_NONULLS.

If label loaded is first to be loaded or a range has been specified call PROCESS_LABEL.

If "valid data only" specified call REMOVE_INVALID_OFFSETS.

End if

Display current number of labels and offsets selected.

Return to caller.

End routine UPDATE_LABEL_POINTERS.

Routine UPDATE_SET_POINTERS:

If wildcard in set name

For each set matching wildcard search call GET_SET_LABELS.

Else if "ALL" specified

For each set label in set file call GET_SET_LABELS.

Else

Call GET_SET_LABELS.

End if

Return to caller.

End routine UPDATE_SET_POINTERS.

Routine VIEW_LABELS:

Display list of available labels.

Select label from available labels list until CNTRL/K entered.

If label selected from list call UPDATE_LABEL_POINTERS.

Return to caller.

End routine VIEW_LABELS.

Routine VIEW_SETS:

Display list of available sets.

Select set from available sets list until CNTRL/K entered.

If set selected from list call UPDATE_SET_POINTERS.

Return to caller.

End routine VIEW_SETS.

Section 7 THE SESSION LOG

The session log enables a user to store the current retrieval session, resume a previously stored retrieval session, or modify a retrieval session. When a user begins a data retrieval session all information pertaining to the current session is maintained in memory. The user may select to store the current session at any time or may edit the information stored in memory for the current session. Appendix D describes the session log file format.

· Storing a data retrieval session.

The user may store the current retrieval session by selecting option "S" from the main menu of the USER code. The user will be prompted for the session name. The extension should not be part of the session name. A file <session_name>.SL2 will be created and will contain all information required to resume the session. The user will also have the option to create the session log when terminating the retrieval session.

· Editing a retrieval session.

The user may modify the contents of the session log by selecting option "G" from the "Data Selection" menu. The "Data Selection" menu is presented when option "D" is selected from the USER code main menu. When option "G" is selected the system spawns the editor defined by the symbol "DBS_EDITOR" and opens the session log file. The session log may also be modified offline by any text editor.

• Resuming a data retrieval session.

When starting a data_retrieval session, the user is prompted for "New" or "Previous" session. If previous session is selected the user may enter a valid session name or select a session from a list of available sessions. When a valid session name is entered the information contained in the session log is loaded into memory. The user may now resume the session from the point that it was stored.

• Initializing the current retrieval session.

The user may initialize the current retrieval session at any time by selecting option "I" from the USER code main menu. This will return the retrieval session to the "New" session state.

Section 8 DATA ARCHIVAL

As the volume of data in the AFAS Database System grows it will be necessary to archive tests that are no longer accessed on a regular basis. An archival facility has been provided to enable the Database Manager to archive selected tests to optical media and/or magnetic tape.

The archival system allows the Database Manager to archive selected tests and either delete or retain the archived test in an active status. After a test has been successfully archived, a record* is entered into the archival master file (DB-DISK:[DBSE]ARCH_MASTER.FIL). The test index record* in DBDISK:[DBSE]TEST.IND corresponding to the archived test is also updated to reflect the status of the archived data. The first six characters of the archival media label are entered into the "arch_m_vol" field of the test index record. The status of the archived data is recorded in the "arch_m_flag" field of the test index record.

The possible values for "arch_m_flag" are:

- 0 Data not archived
- 1 Data archived and retained
- 2 Data archived and deleted

If engineering data are available for the archived test the fields "arch_e_vol" and "arch_e_flag" will be updated as well.

If a user selects a test that has been archived and deleted, a message will notify the user that the requested test has been archived and is not available. The user should notify the Database Manager to have the test restored.

The Database Manager restores an archived test by selecting the restore option from the archival menu. If a test has been archived more than once, a list of archival sets is presented. The Database Manager selects the appropriate archival set from this list.

All record fields for all files are defined in Appendix C.

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Appendix A DATABASE SYSTEM MODULE LISTING

	2000	Sout ton	Description
Kout Ine Name	Source Fits		
ARCHIVE MAIN	ARCHIVE MAIN.FOR	ARCHIVE	Main routine for ARCHIVE code section.
	003 035000	d d s MOHH	for BROWSER
BROWSEK MAIN	DROWSER.FOR	Nacional San	
DBS_DAT_MAIN	DBSE.FOR	DBS DAI	MATHEMATICAL TOT DESCRIPTION OF THE STATE OF
DBS_MCR_MAIN	MANAGER . FOR	DBS MCK	Main Loutine tor Dbs man code sections
DISPLAY MAIN	DISPLAY.FOR	KEPOKI S	Main toutine tot Arronia code section:
MAIN MENU MAIN	GET_OPTION.FOR	MAIN MENO	Main routine for Main Menu code section.
USER MAIN	DATA_RETRIEVAL.FOR	USER	Main routine for USER code section.
function ACCESS OKAY	ACCESS OKAY.FOR	DBS_LBR	Determine if user has access to specified test.
subrouting ACCESS TEST FILE	ACCESS TEST FILE.FOR	DBS LBR	Provide interface to TEST.IND file.
Subrouting ADD UNBOUNDED LABEL	ADD UNBOUNDED LABEL. FOR	USER	Add label with no range specification.
subrout to ADD VALUE	LINKLIST.FOR	DBS DAT	Add a value to the linked list.
subrout to AD-HIST LIST	ADJUST LIST FOR	DBS_DAT	Find label in list and display it.
contract the ADMET 115T II	AD HIST LIST II FOR	USER	Find label in list and display it.
STOCOGE TOO BOILD TOO DAY	AN HIST REPORTS FOR	REPORTS	Scoll list of available reports and select one.
CINCIPAL TOPON	AD EDIT POR	CBC 180	(hydate value file record.
		NOT CON	System wast /disposed archive commands.
	ARCHIVE FOR	AMCHIVE	build archive remost backup command
subrouting Build BACKUP CMD	ARCHIVE.FUR	ARCHIVE	build be // moth felles become comment.
subroutine BUILD INPUT FILE	BOILD INPUT FILE. FOR	USER	Dully No/1 meta tiles.
subrouting BUILD RESTORE CMD	BUILD RESTORE CMD. FOR	AKCHIVE	Create archive rescore community
subroutine BuilD_SAVESET	ARCHIVE FOR	ARCHIVE	Create atchive save set hame.
subroutine BUILD_SESSION_FILE	BUILD SESSION FILE. FOR	USER	Build session log ".Ast.
function CARRAY_BSEARCH	CARRAY_BSEARCH.FOR	DBS_LBR	Perform binary search on sorted string array.
subroutine CALL_DB_EXIT	CALL DB. FOR	DB_EDIT	DB EDIT Exit handler.
function CHAR MATCH	CHAR_MATCH.FOR	DBS_LBR	See if character string and byte array match.
function CHAR_VAL	RANGE_CHECK.FOR	DBS_LBR	Convert a byte array to a character string.
function CHECK_FIELDS	ARCHIVE. FOR	ARCHIVE	
Subroutine CHECK_VCOUNT	PROCESS_LABEL.FOR	USER	Remove offsets with VALID COUNT > 0.
	SCROLL_VALIDATION.FOR	DBS_DAT	Clear buffer by setting to nuits.
subroutine CLEAR_DBSE_REC	RECORD. FOR	DBS_LBR	Load value file record with nulls.
subrouting CLEAR LABEL FIELD	LABEL.FOR	DBS_LBR	Load specified label record field with blanks.
	QUEUE. FOR	DBS_LBR	Clear RAB queue.
subrouting CLEAR RECORD	LABEL. FOR	DBS_LBR	Load label record with blanks.
	RECORD. FOR	DBS_LBR	Load value file record field with blanks.
	STACK.FOR	DBS_LBR	Clear RAB stack.
e CLOSE	USER LOG. FOR	DBS_LBR	Close user log file.
	GET OPTION. FOR	MAIN MENU	Determine the index of the DCL command.
9	COMBINE SETS. FOR	DBS DAT	Combine two or more sets into single set.
	COMPLEMENT CELL, FOR	DBS_LBR	Toggle valid data cell flag.
	COMPRESS. FOR	DBS_LBR	Remove imbedded blanks and nulls from string.
subrouting CREATE ARCHIVAL SCREEN	EEN		
•	CREATE_ARCH_SCREENS.FOR	ARCHIVE	Create archival command echo screen.
subroutine CREATE_CH_LOG_SCREEN	2		
	CREATE CH LOG SCREEN. FOR	DBS_LBR	Create screen for viewing change log entitles.
subrouting CREATE D CREAT	CREATE_D.FOR	DBS_MGK	כופקרת רוות מכותתו דסד רוות זו וייתיות כליניניי
	CREATE DATA INPUT SCREEN.FOR	DBS DAT	Create screen for "I" main menu option.
	CREATE ARCH SCREENS. FOR		Create archive store prompt screen.
subroutine CREATE HELP	CKEATE HELP.FOR		Create main help screen.
	CHEATE KEY SCROLL.FOR	DBS_LBR	Create screen for scrolling available key values.
subrouting CREATE L	CREATE L. FOR		Create screen for "L" main menu option.

Routine Name	Source File		
i		and the second	Crost of make make a month
subrouting CHEATE MAIN_MENU	CREATE ARCH SCREENS. FOR	ARCHIVE	CIBALG ALCHIVE MAIN SCHOOL:
	CREATE P.FOR	DBS MGR	Create the screen for the "F" main menu uprion:
	900 0 054000	DRS MOR	Create the screen for the "R" main menu option.
	Chente n.con		District the track of the District of the Dist
subrouting CREATE RECORD	CHEATE KECOMU.FUR	Non-cau	
subrouting CREATE RPT SCREEN	CREATE ARCH SCREENS.FOR	ARCHIVE	Create archival report prompt screen.
THE STATE OF STATE AND SCHOOLS	CHEATE RPT SCROLL FOR	ARCHIVE	Create archival report scrolling file.
מתחומת הואים ה	COURT OF TABLE COLD	0350	load selected data into RS/1 tables.
Subtouting CREATE RSI IABLES CA	Chenic not the contract of the		
subroutine CREATE NTR GET SCH	NA:		
ı	CREATE ARCH SCREENS.FOR	ARCHIVE	Create archive restore prompt actedii.
NOS SETTION CONTINUES	DATA RETRIEVAL FOR	USER	Create main menu screen.
	OUS NOW SERVICE	REPORTS	Create display for REPORTS code section.
Subroutine CREAIL SURA		OCH SOU	
subroutine CREATE SCHOLL	CREATE_SCHOLL.FUR	Non Sau	The first the state of the stat
subroutine CREATE SCHOLL_SCRE	Z		
	CREATE_ARCH_SCREENS.FOR	ARCHIVE	Create archive entries scrolling screen.
subrouting CREATE SOURCE SCREEN	24		
	CREATE SOURCE SCREEN.FOR	DBS LBR	Create screen for entering source/testid.
TIONAL CONTACT COLLEGE SCHOOL		1	
	CREATE SOURCE SCROLL.FOR	DBS LBR	Create screen for scrolling available tests.
A LOST OCCURS TO A	CHOSON DISDLAY FOR	DAS LAB	Turn cursor on/off.
Subroutine conson pistent	CONSOL DESCRIPTION OF STREET	OBC TRO	Convert byte array to string.
subroutine CVF BYTES TO STR	CVI BITES 10 SIN. FOR	Van - 500	Content number (c) data to atribo.
subroutine CVT_FIELD_TO_STR	CVI_FIELD_TO_STR.FOR	Nes Les	College and the care to be an additional to the care of the care o
subroutine CVT I4 TO STR	WRITE_SESSION_FILE.FOR	USER	CONVERT FOUR DYCE INCAGES TO CHAIRCLE SCEENING.
subroutine CVI R& TO STR	WRITE SESSION FILE. FOR	USER	Convert eight byte real data to character string
subrouting CVf STR TO FIELD	CVI STR TO FIELD. FOR	DBS_LBR	Convert string to appropriate data type.
Subrout the CVT STR TO NUM	CVT STR TO NUM. FOR	DBS LBR	Convert string to numerical data.
STATE TO CALL PLAN	READ SESSION FILE. FOR	USER	Load input fleld into appropriate byte fleld.
ALL THE CALL TOWNS OF TO	CET BOT FIELDS FOR	ARCHIVE	Verify that date field is valid.
TURCLION DATE VALID		DRS DAT	Ootion "L" of main menu - Label Maintenance.
	DATEST FOR	DBS DAT	Option "S" of main menu - Set Maintenance.
		TAG DAG	DRS DAT exit handler.
subroutine DBS_EXIT	DDS EALLS ON	DBC 180	Read/Write aditor for value file.
	UB EUII.FOR	100	Dalate a walue file record
subrouting DELETE DBSE_REC	RECORD FOR	DBS_LBR	Delete a value lite recold:
subroutine DELETE LABEL RECORD LA	D LABEL.FOR	DBS_LBK	perecutant raper record.
function DELETE QUEUE POSIT	NOI		
	哥	DBS_LBR	Remove entry from RAB queue.
subroutine DELETE SET REC	SET DATA.FOR	DBS_LBR	Delete a set file record.
function DEVICE SUPPORTED	ARCHIVE. FOR	ARCHIVE	Determine if requested device is supported.
THIS CALL OF STREET	DISPLAY FIELD FOR	DBS DAT	Display label field.
and a series of the series	DIEDIAV FOR	REPORTS	Display selected report.
	not interest	3110504	Display Current monitor mode.
subrouting DISPLAY MONITOR	ARCHIVE: FOR	ARCHIAE	CLUBIA CALLERY MAINTENANCE MARKET DE PARTIE DE PARTIE DE PARTIE DE PARTIE DE PARTIE DE PARTIE MARKET DE PART
subroutine DISPLAY MSGS	ARCHIVE.FOR	ARCHIVE	Display completion status messaye.
subrouting DOWN	DISPLAY.FOR	REPORTS	Scroll display down
Subroutine EDIT SESSION FILE	EDIT SESSION FILE.FOR	USER	Spawn editor to edit session log.
EMPTY STACK	STACK.FOR	DBS LBR	
9	ENTER BOUND FOR	USER	Read range value and convert to appropriate type
Subscout too ENTER RANGE	ENTER RANGE. FOR	USER	Prompt user for range values.
NAMED STATE OF THE PARTY OF THE	ARCHIVE, FOR	ARCHIVE	Erase prompt screen.
National and action and actions	10.5 m 13H	DHS LBR	Erase the help message display.
Subrourine Erase here region	COACE TO DECTON FOR	DHS I HR	
Subfoutine Erase 10 region	NO SERVICE OFFICE RECION FOR	DBS_LBR	Erase options region of display.
Subroutine Elease Orition and	ELASE OF LOW REGION ENGINEERS OF FROM SECTION OF THE SECTION OF TH	!	
Subroutine EKASE_OFIION_KESIK	70		

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				Frase errolling region of disolar
throuting ERASE SC	ROLL REGION	ERASE SCROLL REGION. FOR	DBS LBR	FLAVE UCLULATION ASSESSED OF CLUSTON'S
SUCCULING ENAME SCHOOL TO SERVE	NOTE ACTION	ERROR HANDLE FOR	DBS_LBR	Error handling routing.
subrouting FIND NIN	FIND NUMBER STOP	:'E	USER	Find end of a numerical field.
	5.5	FIND TYPES FOR	DBS LBB	Determine available extension types for test.
Fuert too FIND VALUE	30	FIND VALUE. FOR	DBS_LBR	Search for requested value in value file record.
	FINISH SESSION FILE	SCA	ŧ	
			USER	End session file scan - close session log file.
subroutine FORMATTER	X	FORMATTER. FOR	DBS_LBR	Create output format string for REAL*8 value.
	NCK	STACK.FOR	DBS_LBR	See If RAB stack is full.
subroutine GEN REPORT	THO	GEN_REPORT.FOR	USER	Generate report of selected data to output file.
subroutine GEODAT		GEODAT. FOR	DBS_DAT	Define/display geometry data.
function GET_ARC	GET_ARCHIVE_DATA	ARCHIVE.FOR	ARCHIVE	Get archival store fields.
subroutine GET_ARY	FIELD		DBS_DAT	Load buffer with bytes from value file record.
subroutine GET_CNT	3LK		USER	Intercept unsolicited input.
subroutine GET_DISH	- NAME	GET_DISK_NAME.FOR	DBS_LBR	Get data storage device name for test.
function GET_FIND_RANGE	RANGE	GET_FIND_RANGE.FOR	DBS_LBR	Prompt user for label, hi/low range and direction.
subrouting GET_FIRST_KEY	ST_KEY	POSITION TEST FILE. FOR	DBS_LBR	Read first valid key from test index file.
subroutine GET_INPG	GET_INPCONERR_FILE	ERROR_HANDLE.FOR	DBS_LBR	Get error message string.
subroutine GET_LAB	LABEL_FIELD	LABEL. FOR	DBS_LBR	Return specified label record field.
	NOI	ARCHIVE. FOR	ARCHIVE	Get main archive menu option.
subrouting GET NEW MIN		RANGE_CHECK.FOR	DBS_LBR	a new min for the current value
9	2	RANGE CHECK.FOR	DBS_LBK	Cot next record from test index file
		COSTRON TEST FIRE FOR	200	CONTINUE TO THE TRUE TO THE TOTAL TH
		FOSTITON IEST FILE.FOR	NOT COO	Cat Hake Ady Value Lious totals title:
subrouting GET NUM	CET NOW ENTRIES	ANCHIVE: ON	IISEB	Read numerical field from disolar.
subsporting del norden	ממני מיני		ARCHIVE	Load requested archive record into memory.
	FIELD	RECORD FOR	DBS LBR	Get a value fille record field.
	GET RELATIVE POS	ARCH IVE. FOR	ARCHIVE	Determine relative volume position of save set.
	FIELDS	GET RPT FIELDS.FOR	ARCHIVE	Get archive report generation fields.
	FIELDS	ARCHIVE. FOR	ARCHIVE	Get archival restore fields.
subroutine GET_SAVI	ESET_EXT	ARCH I VE. FOR	ARCHIVE	Create unique save set extension.
subroutine GET_SET	GET_SET_LABELS	GET_SET_LABELS.FOR	USER	Load labels from set into selected label array.
subroutine GET_SET	SET VARS	DATSET. FOR	DBS_DAT	Define X, Y and Z set parameter fleld namus.
function GET_SOU	SOURCE TESTID	GET_SOURCE_TESTID.FOR	DBS_LBR	Get a valid source/testid/type.
subroutine GET_SUBPID	dI d	ARCHIVE FOR	ARCHIVE	Get subprocess PID.
subroutine GET_TRG	r_bev	ARCH IVE . FOR	ARCHIVE	
subroutine GET_TYP	a)	GET_TYPE.FOR	DBS_LBR	Determine the data type to be used (M/E), etc.
subroutine GET_VAR_VALS	VALS	DATSET.FOR	DBS_DAT	Get X, Y and Z set parameter fleld values.
subroutine HELP			DBS_LBR	Display available help messages.
subroutine HLI_PRO	HLI_PROCESS_TABLE2	PROCESS	DBS_MGR	Load set data from RS/1 table 2.
subroutine HLI_PKO	PROCESS TABLE3	HLI_PROCESS_TABLE3.FOR	DBS_MGR	Load data labels from RS/1 table 3.
function 12_VAL		RANGE_CHECK.FOR	DBS_LBR	Convert a two-byte array to a two-byte integer.
function I4 RUN		SCROLL_VALIDATION.FOR	DBS_DAT	Convert RUN number to integer*4.
function 14 VAL		RANGE_CHECK.FOR	DBS_LBR	Convert a four-byte array to a four-byte integer.
function INCREASING	ING	INCREASING. FOR	DBS_LBR	Determine if a value is between ranges.
9	SSION	INIT SESSION.FOR	USER	Initialize session log information fields.
	INITIALIZE SESSION FILE	, 01		
	l	SCANNER. FOR	USER	Init. session file scan - open session log file.
9	INSERT_PARM_DATA	INSERT_PARM_DATA.FOR	DBS_MGR	Load parameter data into parameter file.
function KEYCHANGE	39	CREATE_RPT_SCROLL.FOR	ARCHIVE	Determine if key field is still valid.
subroutine LABEL_PARAM	AKAM	LABEL_PARAM.FOR	DBS_MGR	Create/View/Modify parameter files.
1		•		

Nout the Name	Source File	340000	
subrout to LEVEL OF ACCESS	LEVEL OF ACCESS. FOR	DBS LBR	Determine user's level of access.
Substanting the Line Asserting	SCHOOL TESTS FOR	DHS MGR	Copy active screen record to test index record.
subrouting Linelication	LINKLIST FOR	DBS_DAT	Copy the linked list to a character string array.
subroutine LIST LABELS	LIST LABELS FOR	USER	Display labels selected during retrieval session.
subrout the LIST SETS	LIST SETS FOR	USER	Display sets selected during retrieval session.
subroutine LOAD LABEL LIST	LOAD LABEL LIST.FOR	DBS DAT	Create list of available labels.
subroutine LOAD RSI DATA	LOAD RS1 DATA.FOR	DBS_LBR	Load RS/1 meta-files into database.
subroutine LOAD RS1 TABLES		DBS_MGR	Load RS/1 tables into database.
subroutine LOAD SET VAR VALS		DBS_DAT	Get default X, Y and Z set parameter field values.
subroutine LOG MOD		DBS_LBR	Record a cell modification in change log.
	MANAGE ENGR FILES. FOR	DBS_MGR	Create "E" type - engineering data files.
	MCR EXIT.FOR	DBS_MGR	DBS_MGR exit handler.
	MIN MAX SCAN.FOR	USER	Display min/max values for test data labels.
	MIN MAX SCANZ.FOR	DBS_DAT	Display min and max values for each test label.
subroutine MODIFY LABEL DESCR		DBS_DAT	View/Modify label parameter field values.
		DBS LBR	Copy bytes from one location to another.
	MOVE MEASURED DATA.FOR	DBS_MCR	Copy "M" information files into "E" region.
	NEW SPEC. FOR	DBS_LBR	Determine file specs for new file.
function NEXT TOKEN	SCANNER. FOR	USER	Read next fleld from session log file.
subroutine NULLIFY LIST	LINKLIST.FOR	DBS DAT	Initialize the linked list.
subroutine OPEN ARCH FILE	ACCESS ARCH.FOR	ARCHIVE	Open archival record file.
subrouting OPEN CH LOG FILE	ACCESS CH LOG.FOR	DBS LBR	Open change log file.
subroutine OPEN DBSE	RECORD, FOR	DBS_LBR	Open the specified value file.
subroutine OPEN LABEL FILE	OPEN LABEL FILE.FOR	DBS_LBR	Open label data file.
subroutine OPEN SET FILE	SET DATA.FOR	DBS LBR	Open set data file.
	USER_LOG.FOR	DBS_LBR	Open user log file.
subrouting OFTION D	OPTION_D.FOR	DBS_MGR	Option "D" of main menu - test index file.
subroutine OUTPUT REPORT	OUTPUT REPORT FOR	USER	Prompt user for type of report to be generated.
function POP		DBS_LBR	Pop entry from RAB stack.
function POP_FIRST_POSITION		DHS_LBR	Pop entry from RAB stack and put in queue.
subrouting Position DEVICE	ARCHIVE_MAIN. FOR	ARCHIVE	Position archival media to specified file ptr.
subroutine POSITION TEST FILE		DBS_LBR	Set test index file to specified record and read.
subrouting PRINT REPORT	PRINT REPORT. FOR	ARCHIVE	Write archive report to ARCH_REPORT.RPT.
subrouting PROCESS LABEL	PROCESS_LABEL.FOR	USER	Restrict offsets for label and range.
subroutine PROCESS_SESSION_FI	77		
	PROCESS_SESSION_FILE.FOR	USER	Load and process a session log file.
subroutine PROCESS_TABLE2	PROCESS_TABLE2.FOR	DBS_LBR	Load the set data meta-file into database.
subrouting PROCESS TABLE3	LOAD RSI DATA.FOR	DBS_LBR	Update label file with any new labels.
	PUNGE KUNS. FOR	DBS_MGR	Remove specified runs from data value file.
function PUSH	STACK.FOR	DBS LBR	Push entry on RAB stack.
		DBS_LBR	Remove element from RAB queue and push on stack.
9	SCROLL VALIDATION. FOR	DBS_DAT	Load value file record with buffer contents.
	SCROLL_VALIDATION.FOR	DBS_DAT	Convert buffer to string.
	RECORD. FOR	DBS_LBR	Load a value file record field with invalid data.
subroutine PUT_KEY_SCROLL_OPTIONS	IONS	1	
	PUT_KEY_SCROLL_OPTIONS.FOR	DBS_LBR	Create Key scrolling display.
	LABEL.FOR	DBS LBR	Load Value into specified label record field.
subroutine PUT MENU	GET OFTION. FOR	MAIN MENO	
subrouting PUT OPTION_LIST	VALID_OPTION.FOR	DBS_LBR	Display a list of valid options.
subroutine PUT_PARAM_DATA	LABEL PARAM.FOR	DES_MGR	Display data from specified parameter file.
subrouting PUT_REC_FIELD		DBS_LBR	Load a value file record field with valid data.
TICE THE CHANGE TO SEE	VALID OPTION FOR	DBS LBR	Display a list of valid subootions.

QUERY BOUND RA RA VAL RANGE CHECK READ ANCH LOG REC A READ DISE REC A READ DISE REC HOR READ FIRST DISE REC B READ FIRST DISE REC READ FIRST DISE RES REC READ FIRST READ FIRST RES RES RES REC REC READ FIRST READ FIRST RES RES RES REC RES	QUERY BOUND, FOR RANGE CHECK, FOR RANGE CHECK, FOR RANGE CHECK, FOR ACCESS ARCH, FOR ACCESS CH LOG, FOR	DBS_LBR DBS_LBR	Get a boundary value (high/low). Convert a four-byte array to a four-byte real.
R4 VAL R4 VAL R4 VAL RANGE CHECK READ ARCH REC READ DISE REC READ DISE REC READ DISE REC READ DISE REC READ FIRITS READ FIRITS READ FIRST DISE REC READ FIRST DIST DISE REC READ FIRST DISE REC READ FIRST DIST DIST DIST DIST DIST DIST DIST DI	GE_CHECK.FOR GE_CHECK.FOR GE_CHECK.FOR ESS_ARCH.FOR	DBS_LBR	
R 4 VAL. R 4 VAL. RAJGE_CHECK READ_ARCH_REC READ_CH_LOG_REC READ_DHSE_REC READ_DHSE_REC READ_DHSE_REC READ_TILDS READ_FIRST_DBSE_REC R READ_FIRST_DBSE	GE_CHECK.FOR GE_CHECK.FOR GE_SARCH.FOR ESS_ARCH.FOR	001 000	
NO VO NO VO NO VO VO VO	GE_CHECK.FOR ESS_ARCH.FOR ESS_CH_LOG.FOR	חסיו רסת	Convert an elgnt-byte attay to an elgint-byte teat
NEAD ELLECK N READ CHILOG REC N READ CHILOG REC N READ DUSE REC R READ DUSE REC HDR R READ FIELDS READ FIRET DUSE REC R READ FIRST DUSE REC R	ESS_ARCH.FOR ESS_CH_LOG.FOR	DBS_LBR	
READ_CH_LOG_RECARAD_CHE_LOG_RECARAD_DHSE_REC_HDR READ_FIELDS READ_FIELDS READ_FIRST_DHSE_REC_READ_CHESTLARAD_CHESTLARAD_CHESTLARAD_CHESTLARAD_CHESTLARAD_CHESTLARAD_CHESTLARAD_CHEST	ESS_CH LOG.FOR	ARCHIVE	Read archival record.
READ DUSE REC HOR READ DUSE REC HOR READ FIELDS READ FIRST DUSE_REC READ FIRST DUSE_REC READ LABEL		DBS LBR	Read change log record.
READ DESE RECHOR READ FILEDS READ FIREDS READ FIRET DESE REC READ LABEL READ LABEL READ LABEL READ LABEL READ SESSION FILE READ LABEL READ LABEL READ LABEL READ RESSION FILE READ LABEL	OBO FOR	DBS_LBR	Read value file record.
KEAD FIELDS READ FIRST DBSE REC R READ LABEL ILABEL	RECORD. FOR	DBS_LBR	Read value fille record header.
READ FIRST DBSE REC R READ LABEL READ SESSION FILE R BEAD SESSION FILE R	RCHIVE FOR	ARCHIVE	
READ LABEL READ SESSION FILE R	RECORD, FOR	DHS LBR	Position value file pointer to first record.
READ SESSION FILE R	ABEL. FOR	DBS_LBR	Read label file record.
Services of the contract of th	FAD SESSION FILE FOR	USER	Load session log into memory.
	DATA FOR	DBS LBR	Read a set file record.
ACH DAY 112 CANG	DATA FOR	DBS_LBR	Read a set file record header.
Substant to DEAD DEEP TOG	ISER LOG. FOR	DBS_LBR	Read a user log entry.
NEOR SCREEN	REDRAM SCREEN. FOR	USER	Repaint current display.
REFRESH MIN MAX SCRE	•		
	REFRESH MIN MAX SCREEN.FOR	DBS_DAT	Rewrite fields on min max display.
subroutine REMOVE DATA REM	REMOVE DATA.FOR	DBS_MGR	Allow user to remove/modify data in value Ille.
subroutine REMOVE INVALID OFFSETS			
438	REMOVE_INVALID_OFFSETS.FOR	USER	Remove invalid data offsets from offset affay.
function REMOVE_LAST_QUEUE_ENTRY		900	bomone last outro from BAR mislie.
3	QUEUE. FOR	DBS_LBK	possing a label in the appropriate info. files.
Ξ,	ENAME_LABEL.FOR	DBS_DAT	Manage a tablet to the appropriate the contract the contract the contract to t
QUEUR_ENTRY C	NEUE.FOR	DBS_LBK	property an appointed that queen protections
Ξ,	EP_EXIT.FOR	KEPOKTS	Reports display data mandain.
function RESET POSITION QUE	DEUE.FOR	DBS LBR	FUD NAD SCREW BILL SEC 1444 to this processing
Ne RESTORE	ARCHIVE_MAIN.FOR	ARCHIVE	Generate Atomivat rescote communities
~	SUME_SESSION.FOR	USER	Resume a previously stoled session:
RES PARM FILE	S_PARM_FILE.FOR	DUS_LBR	teat conting in
RS1_COLNUM	I_FAKE.FOR	DBS_LBR	comparibility test
HSI_CLOSE TABLE	1 FAKE. FOR	DBS_LBR	compatibility test
RSI DELETE TABLE	RS1_FAKE.FOR	DBS_LBR	compatibility
RS1 FINISH	1_FAKE.FOR	DBS_LBR	compatibility test
RS1 GET CELL	(S1_FAKE.FOR	DBS_LBR	compatibility test
RS1 INIT	1_FAKE.FOR	DBS_LBR	
KS1_LASTCOL	RS1_FAKE.FOR	DBS_LBR	
RS1_LASTROW	1_FAKE.FOR	DBS_LBR	comparing the tout
function RS1_LOCK RS1	ASI_FAKE.FOR	DBS_LBR	comparibility test
KS1 MAKE DIR	1_FAKE.FOR	DBS_LBR	comparibility
RS1 MAKE TABLE	RS1_FAKE.FOR	DBS_LBR	compatibility test
KS1 OPEN TABLE	RS1 FAKE.FOR	DBS_LBR	compatibility test
RSI SET CELL	1 FAKE. FOR	DBS_LBR	compatibility test
RSI SET DIR	1 FAKE.FOR	DBS_LBR	compatibility test
RS1_TABLEEXISTS	RSI_FAKE.FOR	DBS_LBR	compatibility test
RS1_UNLOCK	J.FAKE.FOR	DBS_LBR	compatibility test
ne RSI BADOPTIONS	RSI FAKE.FOR	DBS_LBR	compatibility test
RS1 CANTOELETE	1 FAKE.FOR	DBS_LBR	compatibility test
RST DISKSPACELOW	1 FAKE.FOR	DBS_LBR	compatibility test
RS1 FMPTY	RS1 FAKE FOR	DBS_LBR	compatibility test
RS1 INVALIDEOLNUM	1 FAKE FOR	DBS_LBR	compatibility test
T NV AT TOROWNIM	RS1 FAKE. FOR	DBS_LBR	RS/1 compatibility test routine.

Routine Name	Source File		
	DS1 SAKE FOR	DBS LBR	RS/1 compatibility test routine.
	RSI FAKE FOR	DBS_LBR	test
NOTATEXT	RS1 FAKE FOR	DBS_LBR	test
Not Not INCOME	SON SAME FOR	DBS_LBR	
MOTOR BOTTO	ROL FAKE FOR	DBS_LBR	
DEL PREVIOUSINIT	RS1 FAKE FOR	DBS_LBR	test
	RS1 FAKE FOR	DBS_LBR	test
A RS1 TABLEEOF	HS1 FAKE FOR	DBS_LBR	RS/1 compatibility test routine.
RS1 USERDIRLOCKED		DBS_LBR	RS/1 compatibility test routine.
SAVE FIELD	SAVE FIELD. FOR	DBS_DAT	Store a value into the label parameter value fleid.
SAVE POSITION	QUEUE. FOR	DHS_LHR	Add current RAB to RAB queue.
9	WILDCARD. FOR	DBS_LBR	Determine if an entry is in array of strings.
	SCROLL SOURCES.FOR	DBS_LBR	Scroll available key values.
	SCHOLL SOURCES.FOR	DBS_LBR	Scroll available test entries.
	SCHOLL TESTS. FOR	DBS_MGR	scroll/Modify records in test index file.
SCROLL VALIDATION	SCHOLL VALIDATION.FOR	DHS_DAT	Display RUN, RERUN, FRAME and VALID COUNT for test.
SELECT MATCH	SELECT MATCH. FOR	DBS DAT	Display list entries matching a requested pattern.
SESS FILE READ ERR	READ SESSION FILE.FOR	USER	Create session file read error message.
	RECORD. FOR	DBS LBR	Set value file record pointer.
subrout the SET FILE	SET FILE. FOR	DBS_LBR	Set file pointer to a specific address.
	SCHOLL TESTS.FOR	DBS_MGR	Set test index file pointer to specified record.
	SET MIN MAX. FOR	DBS_LBR	Preset min and max values.
SET MODE	SET MODE. FOR	DBS_LBR	Set SMG pasteboard attributes.
SET PROF USEROPEN	SET PROT USEROPEN. FOR	DBS_LBR	Define the protection mask for created file.
he SET VAL	SET_VAL.FOR	DBS_LBR	Update "VALID COUNT" entry .
SET_VALIDITY	SET_VALIDITY.FOR	DBS_DAT	Increment "VALID COUNT" II runs are retodueu.
SET_VOLPOS	ARCHIVE_MAIN.FOR	ARCHIVE	Verify and set volume to correct postcron.
SHIFT ARRAY	PROCESS_LABEL.FOR	USER	Shirt Offset Array to tembor monters entited:
subrouting SKIP WHITE SPACE	SCANNER, FOR	USER	SKID OVER "While Space" in session toy this.
	SORTER.FOR	DBS_MGR	Soft the test index letting.
subrouting SORT_LABEL_ARRAY	BUILD INPUT FILE. FOR	USER 185	story and function completion arrors.
	STAT MSG.FOR	POZ TON	Force execution image to exit.
subroutine STOP_PROC	ARCH IVE. FOR	ARCHIVE	percent of string length without trailing balnks.
tunction STRLEN	WILDCARD FOR	DBS_LDR	Tota bustor with contents of input builds.
	SCROLL_VALIDATION.FOR	UBS DAT	Tools "valid data only" retrieval flag.
	UPDATE LABEL POINTERS FOR	USER NBS MCB	Cook test index record to screen display buffer.
2	SCHOLL TESTS FOR	200	notermine if user has Test Engineer access.
	TEST_ENGR_ACCESS.FOR	No. Lan	Holock value file record.
subrouting UNLOCK DBSE REC		OBC 180	Inlock label fille record.
		ADT COU	
	DISFLAT:FOR	DRS LBR	Convert string to uppercase.
Subrouting UPCASE	OF CASE : FOR	i	
subrouting OPDAIE_DAIA_PUINIERS	UPDATE DATA POINTERS.FOR	USER	Menu for data label/set view and selection.
function UPDATE FILE POSITION	72		
	QUEUE.FOR	DBS_LBR	Position file to specified address.
subfouting UPDATE LABEL POINTERS	rs.		
	UPDATE_LABEL_POINTERS.FOR	USER	Process user-selected label.
subroutine UPDATE_SCREEN	LOAD_RS1_DATA.FOR	DBS_LBR	Notify user of number of labels/liames toaced.
subrouting UPDATE_SELECT_LINE	UPDATE_SELECT_LINE.FOR	NET SEC	update cuitent source/restray type time:
subrouting UPDATE_SET_POINTERS UP	UPDATE SET POINTERS.FUR	ARCHIVE	Undate archival fields in "TEST.IND" file.
subrouting UPDATE TEST FILE	UPDATE_TEST_FILE.FUR	ANCHINE	

	OG VI
USEN EXIT.FOR USER USER EXIT.FOR USER USER EXIT.FOR WAIN WENU GET_OPTION.FOR MAIN WENU VALID OPTION.FOR DBS_LBR VENIFY VOLUME.FOR DBS_LBR VIEW_LABELS.FOR USER VIEW_REPORT.FOR USER VIEW_SETS.FOR DBS_LBR BUILD INPUT_FIRE.FOR DBS_LBR MILDCAND.FOR DBS_LBR MILDCAND.FOR DBS_LBR C ACCESS_ARCH FOR DBS_LBR KEC ACCESS_CH_LOG.FOR DBS_LBR C ACCESS_FOR DBS_LBR	UP VI
USER EXIT.FOR	OG VI
VALID GET_OPTION.FOR MAIN MENU VALID OPTION.FOR DBS_LBR VEHIFY VOLUME.FOR DBS_LBR VIEW_CHANGE_LOG VIEW_CHANGE_LOG.FOR DBS_LBR VIEW_CHANGE_LOG VIEW_CHANGE_LOG.FOR DBS_LBR VIEW_LABLIS VIEW_REPORT.FOR USER VIEW_SETS VIEW_SETS.FOR USER VIEW_SETS VIEW_SETS.FOR DBS_LBR VIEW_SETS VIEW_FLOOR DBS_LBR VIEW_LDCAND_INDUT.FOR DBS_LBR MILLDCAND MILLDCAND DBS_LBR MAILDCAND ACCESS_ARCH.FOR DBS_LBR MAITE_BUSE_RE ACCESS_ARCH.FOR DBS_LBR MAITE_BUSE_RE ACCESS_CH_LOG.FOR DBS_LBR MAITE_LINVTEX.REC_MSG_ERROR HANDLE.FOR DBS_LBR MAITE_INVTEX.REC_MSG_ERROR HANDLE.FOR DBS_LBR	VALID VALID VALID VALID VALID VERIFY VOLUME VER VIEW CHANCE LOG VI VIEW LABELS VI VIEW LABELS VI VIEW REPONT VIEW NEED OUT POS WHITE ACH REC MAITE MAITE LOG REC MAITE CH LOG REC MAITE MAITE MEED MAITE MAITE MEED MAITE MEED MAITE MAITE MEED MAITE MAITE MEE MEE MEE MAITE MEE MEE MAITE MEE MEE MAITE MEE MEE MEE MEE MEE MEE MEE MEE MEE M
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VEHIET VOLUME VEMILATOR VIEW CHANGE LOG VI	VEHIFY VOLUME VE VIEW CHANGE LOG VI VIEW LABELS VI VIEW REPORT VI VIEW SETS VI VIRTUAL INPUT BULLCAND MILLCAND MILLCAND MILL EUFER WHITE BUFFER VI MITE CH LOG REC ACH WHITE LUGEREC ACH ACH ACH ACH ACH ACH ACH ACH ACH AC
VIEW CHANGE LOG VIEW CHANGE LOG FOR LOG FOR LABELS. USER LOG LOG FOR LOG FOR LOG FOR LOG FOR LOG FOR LABELS. USER LOG LOG LOG FOR LABELS. USER LABELS. VIEW LABELS.FOR LOG FOR LOG	VIEW_CHANGE_LOG VI VIEW_LABELS VI VIEW_LABELS VI VIEW_REPORT VI VIEW_SETS VI VIETUAL INPUT VI WEED OUT_POS BL WAITE_CARD WI WHITE_BUFFER VI WAITE_CH LOG REC AC WAITE_CH LOG REC AC WAITE_CH LOG REC RE WAITE_CH LOG REC RE WAITE_INVIER_RES REC REC REC WAITE_INVIER_RES REC REC REC REC REC WAITE_INVIER_RES REC
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VIRTUAL INPUT VIRTUAL INPUT FIRE DBS LBR VIRTUAL INPUT FILE.FOR DBS LBR USER	VIEW SELS VIEW DATE WEED OUT POS WILDCAND WHITE ARCH REC ACH WHITE CH LOG REC WHITE LINGREC RE
VINTUAL INPUT VINTUAL INPUAL	VINTUAL INPOT WEED OUT POS MILDCAND WI WRITE ARCH REC WRITE BUFFER WRITE CH LOG REC ACWRITE DISE REC RE WRITE INVEX MSG EH
MILDGAND	MEED OUT POS BU MILDCARD MILDCARD MILTE ANTER AC MUITE BUFFER WHITE CH LOG REC MUITE CH LOG REC MUITE CH LOG REC MUITE LOG REC M
WILDCAND WILDCAND.FOR DBS_LBR WRITE_ARCH_REC ACCESS_ARCH_FOR ARCH_IVE WALTE_BUFFER VIEW_CHANGE_LOG.FOR DBS_LBR WALTE_DBSE_REC RECORD.FOR DBS_LBR WALTE_INVTEX_MSG ERROR HANDLE.FOR DBS_LBR WALTE_INVTEX_RC_MSG ERROR HANDLE.FOR DBS_LBR WALTE_INVTEX_RC_MSG ERROR HANDLE.FOR DBS_LBR	WILDCAND WRITE ARCH REC ACWRITE BUFFER VIWITE CH LOG REC ACWRITE DBSE REC REWRITE DBSE REC REWRITE INVIKE MSG EN
WHITE_AKCH REC ACCESS ARCH.FOR ARCHIVE	NATTE ANCH REC WALTE BUFFER WALTE CH LOG REC WALTE DUSE REC WALTE DUSE REC
WHITE JUNEER VIEW CHANGE LOG.FOR DBS_LBR WHITE THILDG REC ACCESS CH LOG.FOR DBS_LBR WHITE THILDG REC RECOND.FOR DBS_LBR WHITE INVIEX MSG ERROR_HANDLE.FOR DBS_LBR DBS_LBR WHITE INVIEX MSG ERROR_HANDLE.FOR DBS_LBR DBS_LBR	WHITE DUSE REC WHITE DUSE REC WHITE DUSE REC WHITE DUSE REC
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WHITE DUSE REC RECOMD.FOR DUS_LDR WRITE_INVIEX_MSG ERROR_HANDLE.FOR DBS_LBR WRITE_INVIEXREC_MSG ERROR_HANDLE.FOR DBS_LBR	WHITE DUSE REC
WHITE INVIEX MSG ERROR HANDLE.FOR DBS_LBR WHITE INVIEXREC MSG ERROR HANDLE.FOR DBS_LBR	WRITE INVIEX MSG
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1	EXITE INVIENCE MAG
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COLUMN COCCION SITE FOR	
	subroutine WRITE SET REC SEL DAIN: OR SUbrout the WRITE USER LOG USER LOG:
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USER LOG.FOR	
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Appendix B DATABASE SYSTEM ROUTINE ARGUMENT LISTING

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I/O access function (defined in INCLUDES:file_io_def.inc) Completion status (defined in INCLUDES:file_io_def.inc)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Calling routine flag - TRUE if caller is MIN_MAX_SCAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kay type (Defined in INCLUDES:file_io_def.inc)
Length of passed key field.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Character array to be viewed with each label. Character array to be viewed with each label. Length of infol character string.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "label list" index at top of screen.
"label list" index at bottom of screen.
Length of display line.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Label name string.
Position of label in "sl_label_array".
Value to be added to linked list.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Terminator encountered in SMG read.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Position of label in "label_list".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Status of label list scan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            System completion status.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMG display screen id.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Value file access LUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Size of "label list".
                                                                                                                                                                                                                                                                                                                                                                                                                                              est file access LUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              List of label names.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Current display row.
                                                                                                                                                                                                                                                                                                                                                                                                                              Gest 1d name string.
                                                                                                                                                                                                                                                                                                                                                                                                                Source name string.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Label name string.
                                                                                                                                                                                                                                                                 Access Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key value.
                                                                                                                                                                                 The "Access" field denotes the routine's access to the argument.
Nomenclature : The "Type" field denotes the data type and field size.

    R - Read only access - argument not modified.
    W - Write only access - argument modified.
    R/W - Read/Write access - argument modified.

                                                                                                                  - One-byte logical value.
- Compiler default sized logical value.
                                  - Character string with passed length.
                                                                                                                                                                                                                                                                  Type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C12
I4
C12
12
12
C12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14
                 - Character string of size n.
                                                                     - Four-byte integer value. - Four-byte real value.
                                                    - Two-byte integer value.
                                                                                                - Eight-byte real value.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     infol_elem_size
dbse_lun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      scrn_top_bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                new_value
scrn_id
label_value
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sern btm pos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  list_size
label_list
active_row
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      line_length
                                                                                                                                                    - Record structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                 In_test_1d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     terminator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             label 1d
label pos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  scan_stat
                                                                                                                                                                                                                                                                                                                                                                                                                in_source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                key_mode
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 function
                                                                                                                                                                                                                                                                    Argument
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  key_len
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       m I nmax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   status
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  subrouting ADD_UNBOUNDED_LABEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  subroutine ACCESS_TEST_FILE
                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESS_OKAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   subroutine ADD_VALUE subroutine ADJUST_LIST
                                                                                                                                                    Record
                                       DBS DAT MAIN
                                                                                                                                                                                                                                                                                                     ARCHIVE MAIN
                                                                                                                                                                                                                                                                                                                      DB EDIT MAIN
                                                                                                                                                                                                                                                                                                                                                                      DISPLAY MAIN
                                                                                                                                                                                                                                                                                                                                                                                      MAIN_MENU MAIN
                                                                                                                                                                                                                                                                                                                                                                                                      USER MAIN
                                                                                                                                                                                                                                                                      Routine Name
                                                                                                                                                                                                                                                                                                                                                                                                                     function
```

			1 1 1 1	
subrouting ADJUST LIST U	scrn 1d	14	æ	SMG display screen id.
	label value	C12	œ.	Label name string.
	list pos	12	R/W	Position of label in "label list".
	1 ter etab	1 2	: :	Size of "label list".
	Jahre Jake	::	; ~	List of label names.
	201 120	7.	Μ/α	Current display row.
	SCALVE LOS	12	: 3	Status of label list scan.
	terminator	12	3	Terminator encountered in SMG read.
	scrn top pos	12	R/W	"label_list" index at top of screen.
	scrn btm pos	12	R/W	"label_list" index at bottom of screen.
	line length	12	æ	Length of display line.
	mirmax	ij	œ	Calling routine flag - TRUE if caller is MIN_MAX_SCAN.
	infol	ំ	œ	Character array to be viewed with each label.
	1nfo2	t	æ	Character array to be viewed with each label.
	infol elem size	12	~	Length of infol character string.
	dbse lun	14	æ	Value file access LUN.
subroutine ADJUST REPORTS	scrn_1d	14	æ	SMG display screen id.
ţ	label_value	C12	~	Report name string.
	list_pos	12	R/W	Position of report in "label_list".
	list_size	12	æ	Size of "label_list".
	label_list	C12	~	List of report names.
	active_row	14	R/W	Current display row.
	scan stat	12	32	Status of report list scan.
	terminator	12	3:	Terminator encountered in SMG read.
	scrn_top_pos	12	R/W	"label_list" index at top of screen.
	scrn btm pos	12	R/W	"label_list" index at bottom of screen.
	line_length	12	~	Langth of display line.
subroutine ALTER DATABASE REC	Ī	7.	≃,	Value file access LUN.
ı	cs_lab	ů	≃,	Label name of record to be rewritten.
	new_dbse_rec	Ø	œ	Array containing new value record information.
	max changed offset	†	*	Number of offsets loaded from new value record.
	new cell count	14	×	Number of data cells in new value record.
subroutine ARCHIVE DATA	ppd_1d	14	œ	SMG pasteboard 1d
	main_1d	7.	×	SMG display screen id.
	arch_1d	1	æ	SMG display screen id.
	monitor	3	æ	Display archival commands to screen.
subroutine BUILD BACKUP CMD	backup cmd	C255	3	Archive command.
subrouting BUILD INPUT FILE	scrn_1d	14	~	SMG display screen id.
ţ	kbd_1d	ž	œ	SMG keyboard 1d.
	pbrd 1d	7.	*	SMG pasteboard 1d
subrouting BUILD RESTORE CMD	•	C255	x	Archive restore command.
subroutine BUILD SAVESET				
subroutine BUILD SESSION FILE	scrn_1d	14	œ	SMG display screen id.
1	kbd Id	71	æ	SMG keyboard 1d.
	pbrd 1d	7 I	~	
	previous screen	:	3	Return to previous screen flag.
	session name	C12	3	Session file name.
function CARRAY BSEARCH	array -	ប៉	æ	Sorted array of character strings.
	num elements	14	×	Number of elements in "array".
	taroat	ů	×	String to be found.
STAG STAG STAGES	No.)	;	
Subrouting CAtt DB_EA11				

Routine Name		Argument	Туре	Access	Description
}	HOLEN GARD	tarost string	ច	æ	Character string to be compared.
Inicrion		source string	Record	24	Byte array to be compared.
		source len	12	~	Number of characters to compare.
40000	JAN GAND	Cell	Record	æ	Defines a value file data cell.
	CHECK FIRIDS	get 1d	1	æ	SMG display screen id.
		first row	14	~	First row of fleld input.
		last row	14	æ	Last row of fleld input.
		promot col	14	œ	Column at which field data starts.
t out thought	THEORY ACRES	dbse lun	14	æ	Value file access LUN.
SIN GRAD BITTING COMME	3170 4510	byte buf	Ø	3	Byte array to be cleared.
SIDEOUCINA	CLEAN DOS	len len	12	æ	Number of bytes to clear.
the state of the s	Dan asec deals	::::::::::::::::::::::::::::::::::::::	12	3	Completion status (defined in INCLUDES:fille_lo_def.inc)
Subroutine	SUDFOULTING CLEAN DESERVED	5115	ů	~	Name of field to be cleared.
Subjour 108	CLEAN THURST	stat	12	3	Completion status (defined in INCLUDES:fille_io_def.inc)
franch from	aliano avais	e do N			
unbrout 1 pe	CLEAN SECORD	stat	12	3	Completion status (defined in INCLUDES:file_io_def.inc)
subtout the	Subsourting Chean REC FIELD	offset	14	œ	Position in value file record to be cleared.
amrond mis		stat	12	3	Completion status (defined in INCLUDES:fille_io_def.inc)
funct ton	CLEAR STACK	None			
9	CLOSE USER LOG	log lun	14	æ	User log access LUN.
function	CMC INDEX	terminator	12	3	Terminator encountered in SMG read.
subrout tos	subrouting COMBINE SETS	sot file	ບໍ	æ	Set file name.
		set lun	14	ĸ	Set file access LUN.
		obrd 1d	14	œ	SMG pasteboard 1d
		sern 1d	14	œ	SMG display screen 1d.
		kbd 1d	14	×	SMG keyboard 1d.
subrout ina	subrout the COMPLEMENT CELL	new duse rec	æ	R/W	Byte array containing the value fille record.
	1	offset	I.	æ	cell offset position in "new_dbse_rec"
		cell count	14	R/W	Number of cells loaded into "new_dbse_rec".
		key label	C12	æ	Key field for value fille record.
		dbse lun	ĭ	×	Value file access LUN.
4 4 1 1 1	33 300	***************************************	บ็	K/W	Character string to be compressed.
subfour ind company	COMPRESS	701 TO 101 TO 10	•	:	
subrout Ine	subrouting CREATE_ANCHIVAL_SCREEN	arch 1d	14	3	SMG display screen id.
subroutine	subrouting CREATE CH LOG SCREEN	EN.			
	1	ch log 1d	14	3	display screen
subrouting	subrouting CREATE D scrn_1d	scrn 1d	14	3	SMG display screen id.
subrout Ine	CREATE DATA INPUT	SCREEN			
	1	scrn_1d	7	3	display screen
subrout ine	subroutine CREATE GET SCREEN	get_1d	7.	3	display screen
subrout 1ne	CREATE HELP		14	¥	display screen
subrouting	CREATE KEY SCROLL		11	3	display screen
subroutine	CREATE_L		ĭ	3	SMG display screen id.
subroutine	CHEATE MAIN MENU		1	æ	SMG display screen 1d.
	1		:	×	Display archival commands to screen.
subrouting CREATE P	CREATE P	scrn 1d	7 I	3	SMG display screen id.
subrout toe	CREATER	scrn_1d	14	I	SMG display screen 1d.
subrout the	subrout the CREATE RECORD	pbrd 1d	¥I	œ	pasteboard 1d
) - -	scrn 1d	Y 1	æ	SMG display screen id.
		kbd 1d	14	æ	SMG keyboard 1d.
		val 1d	Ø	3	Valid input flag.
4	Naddos edu amana	77 100	1 7 I	32	SMG display screen id.
subrout 100	subroutine CREATE MFI SCREEN	15r-14	;	:	

Routine Name	Argument	Type Access	sss Description
subrouting CREATE RPT SCROLL	error cond	3	Completion status - not defined in include file.
subroutine CREATE HS1 TABLES so	5	3 41	SMG display screen id.
subroutine CREATE_RTR_GET_SCR	NAS CAL	3	SMG display screen id.
NOS SERGOS COSTACOSTOS	51 days	-	display screen
Subtouting Cheate SCRN	scro_1d	_	display
subjouting CREATE_SCROLL	scrn_1d		SMG display screen id.
, ני	scroll 1d	3	SMG display screen id.
subroutine CREATE SOURCE SCREEN	Na		
	scrn_1d	3 ¥1	SMG display screen id.
subroutine CREATE_SOURCE_SCROLL	11	3	SMG display screen id.
Valdeting Clascop Display		E 20	Flag to turn cursor on/off. On='h', Off='l'.
THE SECOND SHIPPOINTS	obrd 1d	14 X	SMG pasteboard 1d
subroutine CVT BYTES TO STR	string	3	
	strlength	3	Number of valid characters in "string".
	bytes	83	Byte array to be converted.
	form	<u>بر</u> ن	Data type of "bytes" array.
	length		Number of valid bytes in "bytes" array.
subroutine CVI_FIELD_TO_STR	fleld	cord	Data field to be converted.
	fleld_len	12 R	Number of Dytes in data fleta.
	field form		Data type of data figure of an order
	read stat	X :	Compilerion status of previous news.
	ret_val	3 3	Converted value acting. Number of valid characters in "ret val".
	סחר זפוו		Integer value to be converted to string.
subroutine CVI_14_10_31R	11min	: z	Character string that will hold converted integer.
	len str	14	Langth of converted string field.
subroutine CVT R8 TO STR	umo	R8 R	
	Str	32	string that will
	len str	3 71	Length of converted string field.
subroutine CVT STR TO FIELD	string	ς. Σ	String containing value to be converted.
! !	strlength	14 R	Number of valid characters in "string".
	bytes	3	Byte array containing converted fleid.
	form	æ	Data type of data fleid ("bytes").
	length	_	Length of data field ("bytes").
	cvt_stat	34 C	completion status of internal news.
subroutine CVI SIR TO NUM	string	ב א ב	Number of valid characters in "string".
		pord	ed value.
	form		Data type of data fleld.
	Japath	~	Number of bytes in data field.
	CVt stat	14 %	Completion status of internal READ.
subroutine CVT TOKEN ATTR	Str	C. B	Field value string.
1	elem	cord	Field element.
	form	C1 B	Format specifier.
	size	~	Field size.
	type		Data type.
	stat	7 () () () () () () () () () (Conversion completion status.
function DATE_VALID	date	6 0	Date to be variabled.

Koutine Name	Argument	Type	Access	Description
subrout toe DATLAB	pbrd 1d	11	æ	
	sern 1d	14	×	SMG display screen id.
	kbd 1d	14	æ	SMG keyboard 1d.
subrouting DATSET	pbrd 1d	14	×	SMG pasteboard 1d
	scrn 1d	7 1	æ	SMG display screen 1d.
	kbd 1d	14	æ	SMG keyboard 1d.
subroutine DBS EXIT	None			
subrout for DB EDIT	QUIT RIN	External	_	Address of exit handler.
	view only	3	æ	View/Edit data flag.
	ch 10g 1d	¥I	*	SMG display screen id.
subrouting DELETE DBSE REC	dose lun	14	æ	Value file access LUN.
	Stat	12	3	Completion status (defined in INCLUDES:file_io_def.inc)
subrouting DELETE LABEL RECORD		14	8	Label file access LUN.
	stat	12	3	Completion status (defined in INCLUDES:file_lo_def.inc)
function DELETE QUEUE POSITION	NOI			
	position	14	æ	Queue position to be deleted.
subrouting DELETE SET REC	set lun	14	æ	Set file access LUN.
	stat	12	3=	Completion status (defined in INCLUDES:file_lo_def.inc)
function DEVICE SUPPORTED	device name	ů	~	Name of archival device.
subrouting DISPLAY FIELD	record	12	~	Label field position.
	NOI	14	×	Display output row.
	100	14	x	Display output column.
	scrn 1d	1	R	SMG display screen id.
subrouting Display FILE	file name	ů	æ	Name of fills to be displayed.
	scrn 1d	14	×	SMG display screen id.
	kbd 1d	1	æ	SMG keyboard 1d.
	obrd 1d	14	*	SMG pasteboard 1d
Subroutine DISPLAY MONITOR	main 1d	1 1	æ	SMG display screen 1d.
	monitor	17	æ	Display archival commands to screen.
subroutine DISPLAY MSGS	main 1d	14	œ	SMG display screen id.
	monitor	=	æ	Display archival commands to screen.
subroutine DOWN	SAO1 WIN	14	æ	Number of rows to scroll down.
	rab_addr	14	æ	Address of RAB record.
	Jan 1	14	æ	Scroll file access LUN.
	scrn 1d	14	æ	SMG display screen id.
subrout the EDIT SESSION FILE	fname	ວ້	œ	Session file name.
	pprd 1d	14	æ	SMG pasteboard 1d
	kbd 1d	14	æ	SMG keyboard 1d.
	scrn 1d	14	æ	SMG display screen 1d.
	stat	* I	3	Completion status.
	dbse lun	14	æ	Value file access LUN.
function EMPTY STACK	None			
function EMPTY STACK	None			

### SMITCHING BITTER BOAND 1167 ***SMITCHING BITTER BOAND 1167 ***Load	Routine Name	5	Argumant	Type Access	uss Description
Description	subroutine	ENTER BOUND	str		Input string fleld.
Det Dos		1	which		Upper/Lower bound specifier.
Street S			bkt pos		Position in range bucket.
CI			exit flg		User requested exit.
			form		Format specifier.
			size		Field size.
No.			help key		Help key for current routine.
EXIT_RIN SCEN_1d bbrd_1d kbd_1d col err_col err_col err_col err_col err_col err_col bbrd_1d bbrd_1d bbrd_1d bbrd_1d bbrd_1d label_pos lower_bound CREEN gat_1d I 4 R REGION CREEN 1d Brompt_col I 4 R REGION CREEN 1d I 4 R REGION CRECN_1d Brompt_col I 4 R REGION CREEN 1d I 4 R REGION CRECN_1d I 6 R CRECN_1d I 7 R CRECN_1d I 7 R CRECN_1d I 8 R CRECN_1d I 9 R REGION FIRECTON CRECN_1d I 1 R REGION CRECN_1d CRECN_1d I 1 R REGION CRECN_1d			help lev		Help level of current routine.
Sern_id			EXIT RIN	External	Address of exit handler.
NEGION SCEN 14			scrn_1d	14 R	SMG display screen id.
Note			pbrd_1d	I4 R	SMG pasteboard 1d
CREEN Get_Col CREEN Get_Col But Ad id But			kbd Id	I4 R	SMG keyboard 1d.
STOP 14			MOX	14 R	Row for string prompt.
STOP 14			col	14 R	Column for string prompt.
CREEN 1d 14 R R R 14 B L R 14			BLE FOR	¥ 3	Row for error message.
SCEN 1d			err col	I4 R	Column for error message.
New	embrout the	ENTER RANGE	scro 1d	I4 R	SMG display screen id.
			kbd 1d	I.A. R.	
Jabel Dos Doser			pbrd 1d	14 R	SMG pasteboard 1d
IOWer_bound			label pos	_	Position of label in "sl_label_array".
Upper Dound C12 W get_id			lower bound		Lower bound string value.
			punoq 1eddn	_	Upper bound string value.
	subrout 1 ne	ERASE GET SCREEN	get 1d	_	SMG display screen id.
last_row last_row last_row last_row last_row last_row last		1	first row	_	First row of region to be erased.
Second 14			last row		Last row of region to be erased.
Sern_id			prompt col	I4 R	Display column at which prompt is displayed.
pbrd_id id id id id id id id	subroutine	ERASE HELP REGION	scrn_1d	I4 R	SMG display screen id.
scrn_id		t I	pbrd_1d	14 R	SMG pasteboard 1d
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	subrouting	ERASE 10 REGION	scrn 1d	14 R	SMG display screen id.
Scrn_id	ent too	EHASE OPTION REGION		I4 R	
scrn_id	subroutine	ERASE OPTION REGION			
scrn_id signal_args mech_args I4				I4 R	SMG display screen id.
signal args mach args line line curpos stop pos stop pos prompt_str len str current pos direction field form low buf value_buf value_field_len str low_buf value_field_len low_buf value_field_len low_buf low	subrout ine	ERASE SCROLL REGION		I4 R	SMG display screen 1d.
Ine	tunct ton	ERROR HANDLE		I4 R	Error condition array.
curpos curpos stop_gos stop_go		1	_	14 3	Compatibility variable.
cur pos stop pos prompt_str len_str current_pos direction field_form low_buf value_buf value_buf value_buf str current_pos c c c c c c c c c c c c c c c c c c c	subroutine	FIND NUMBER STOP	11ne		Input line for processing.
stop_pos prompt_str len_str len_str len_str current_pos diection field_form field_form field_form low_buf high_buf value_buf value_buf street SION_FILE_SCAN		!	cur pos	14 R	Current line position.
prompt_str C^A W lan_str lan_str li4 W lan_str li4 W lan_str li4 W langection C R lield_len li4 R Record R li9 buf walue_buf stre value_field_len li4 R langection C R li4 R li6 li6 li6 li4 li4 R li4 R li6 li6 li4 li6 li4 li4 R li6 li6 li6 li4 li4 R li6 li6 li6 li6 li6 li4 li4 R li6 li6 li6 li6 li6 li4 li4 R li6 li6 li6 li6 li6 li6 li4 li4 R li6			stop pos	14 ×	Line position at which processing terminated.
len_str current_pos 12 R direction C R field_form C R field_len 14 R low_buf Record R high_buf Record R value_buf Record R value_buf Record R value_buf Record R value_field_len 14 R value_field_len 14 R	subroutine	FIND TYPES	prompt str		Prompt string.
FIND_VALUE CULTent_pos 12 R direction C R field form C R field_len I4 R low_buf Record R high_buf Record R value_buf B R value_buf B R value_field_len I4 R None		1	len str	_	Langth of prompt string.
direction C R field form C R field form C R field ien I4 R low buf Record R high buf Record R value buf B R value buf size I4 R value field ien I4 R None	function	FIND VALUE	current pos		Current search list position.
field_form C R field_len 14 R low_buf Record R high_buf Record R value_buf Record R value_buf 12 R value_buf 512e 14 R value_field_len 14 R Noone		1	direction		Search direction.
field_len I4 R low_buf Record R high_buf Record R value_buf B R value_buf size B R value_buf_size I4 R value_field_len I4 ? FINISH_SESSION_FILE_SCAN			fleld form	<u>د</u> ن	Data field type.
low buf Record R high buf Record R value buf B R value buf size I4 R value field len I4 ? FINISH SESSION FILE SCAN			field len		Dat fleld size.
high buf Record R value buf value buf size Value buf size I4 R value field len I4 7 FINISH SESSION FILE SCAN			low buf		Low bound.
value_buf size B R value_buf size I4 R value_fleid_len I4 ? FINISH_SESSION_FILE_SCAN			high buf	_	High bound.
value_buf_size I4 R value_field_len I4 ? FINISH_SESSION_FILE_SCAN			value buf		Value to be found.
value_fleld_len 14 ? FINISH_SESSION_FILE_SCAN			value buf size		Size of data field to be found.
FINISH_SESSION_FILE_			value fleid len	14 2	Not currently used.
	400	SILT NOTSER HEINTS			
	t nucr ton	FINAL SESSION			

### ### ### ### ### ### ### ### ### ##	Routine Name	Argument	Type Access	s Description
NAME 10 10 10	subrouting FORMATTER	real 8		Data to be formatted.
Form		\$126		Data field size
E_DATA DATA		form		Output format for WRITE statement.
None		stat		Completion status.
E-DATA Pabels P		CON		
E_DATA Pabels 12 R R R R R R R R R	subrout the GEN REPORT	refa		Offsets for output.
Jabels J		num refs		Number of offsets for output.
## CHIVE_DATA 12 R R ## CHIVE_DATA 14 R R ## Paid 14 R R ## Paid 14 R ## Pai		Jabals		Array of labels for output.
CHIVE DATA duse lun refs_flag scrn_id		num labels		Number of entries in "labels".
CHIVE_DATA PAG_1d Abd_1d Abd		distantiant in the		Value file access LUN.
### SCENTING 14 R R R R R R R R R		refs_flag		"refs" array data type flag.
ND_RANGE		sero 1d		SMG display screen id.
CHIVE_DATA pbrd_id		kbd 1d	I4 R	SMG keyboard 1d.
CHIVE_DATA pbrd_id		pprd 1d	I4 R	
CHIVE_DATA PAG_1d	subroutine GEODAT	pbrd_1d	I4 R	pasteboard 1d
SET_ARCHIVE_DATA Rbd_id		scrn 1d	I4 R	display screen
GET_ARCHIVE_DATA pbd_id main_id main_id pdt_id main_id get_id ie GET_ARY_FIELD offset buffer size valid rec stat rec stat pbrd_id ie GET_CNTRLK kbd_id ie GET_CNTRLK kbd_id ie GET_CNTRLK kbd_id ie GET_FIND_RANGE frd_scrn_id pbrd_id frescrn_id frescrn_id scrn_id pbrd_id frescrn_id frescrn_		kbd 1d	I4 R	
NDG_Id I4		pt_1d	14 R	
### ### ### ### ### ### ### ### ### ##		kbd_1d	I4 R	SMG keyboard 1d.
get_id offset buffer buffer size size valid valid iec stat purd_id in_source in_test_id purd_id stat ind_scrn_id purd_id scrn_id purd_id scan_id purd_id scan_id purd_id scan_id purd_id scan_id purd_id scan_id ind_scrn_id in R R scrn_id purd_id scan_id ind_scrn_id in R R scan_id ind_scrn_id ind scan_id ind scan_id ind scan_id ind scan_id ind scan_id ind ind scan_id ind ind scan_id ind ind		main 1d	14 R	SMG display screen id.
buffer buffer size buffer size size size size size size size size		get_1d		SMG display screen id.
buffer size size size size valid rec stat pbrd id th. source th. source to a scrild pbrd id to a scrild pbrd id kbd id kbd id sea field form test lun test lun test stat key pos size key pos size key c key size siz	subrouting GET ARY FIELD	offset		Offset in value record.
### ### ##############################	1	buffer		Target byte array buffer to hold fleld.
Name		size		Number of bytes in field.
E first by the fir		valid		Cell validity flag.
### ### ### ### ### ### ### ### ### ##		rec		Byte array containing the value fille record.
pbrd 1d		stat		Completion status (defined in INCLUDES: [1]e_10_def.inc)
Kbd_id	subroutine GET_CNTRLK	pbrd_1d		SMG pasteboard 1d
In_source	ı	kbd_1d		SMG keyboard 1d.
In_test_id	subroutine GET DISK NAME	in source		Source name string.
SET_FIND_RANGE	1	in test id		Test 1d name string.
SET_FIND_RANGE		disk		Storage disk name.
GET_FIND_RANGE		stat	12 W	Completion status (defined in INCLUDES:fille_io_def.inc)
Scrn_id		fnd scrn 1d	14 R	SMG display screen id.
pbrd_id		scrn 1d	14 R	SMG display screen id.
		pbrd 1d	I4 R	SMG pasteboard 1d
Sea_label C* R Sea_field_form C R Sua_field_len IC R low_buf Record W N high_buf Record W N QuiT_RIN External External test_lun I4 R test_lun I2 W key_pos C* R key C* W		kbd 1d		SMG keyboard 1d.
Sea_field_form C R Sea_field_len I2 R low_buf Record W M high_buf Record W M QUIT_RYN External External test_lun I4 R key_pos C* R key C* W key C* W		sea label		
Sua_field_len 12 R low_buf Record W high_buf Record W QUIT_RIN External test_lun 14 test_lun 12 key_pos 12 key C* strl C*		sea fleld form		Current label data field format.
10w buf		sea field len		data
high buf Record W QUIT_RTN External test_lun 14 R Lust_stat 12 W Key pos C** W key C** W key		low buf		low range buffer.
QUIT RIN External test_lun 14 R Lest_lun 15 W W Wey pos 12 R Key pos C** W W Key key C** W W Kerl		high buf	Record	High range buffer.
test_lun		OUIT RIN	External	Address of exit handler.
test_stat 12 W Key_pos 12 R key strl C* W	YEX TRUE CET BIRST KEY	test lun		Test index file access LUN.
Key pos 12 R key strl C* W		test stat		Completion status (defined in INCLUDES:file_lo_def.inc)
key Ca R Stri		Now York		Key position of "key"
Strl C. W		201		Key value for TEST. IND fille read.
: 1110	SILE GUGNOOUNI WAS TELEVISION			Taroet string.
40	SUBTOUTING GET_INFCUNERA_FILE			Course of ring

er cond 14	Routine Name	Argument	Type Access	Description
buffer state state state state state state main id kbd_id kbd_id key_pos scrn_id col num numlen test_lun test_l	subroutine GET LABEL FIELD	fleld		Field name to be retrieved.
STEE	l	buffer		Byte buffer to receive field.
SET_MAIN_OFTION State		size		Number of bytes in field.
GET_NEW_MIN_OPTION main_id 14 R ie GET_NEW_MIN None 14 R ie GET_NEW_MIN None 14 R GET_NEXT_ENTRY test_lun 14 R GET_NEXT_ENTRY test_lun 14 R Key_Dos Con 12 R Key_Dos Con 12 R Key_Dos Con 14 R Key_Dos Con 12 R Key_Dos Con 14 R Key_Dos Con 14 R Key_Dos Con 14 R Key_Dos Con 14 R Col No 14 R Col N		stat		Completion status (defined in INCLUDES:file_lo_def.inc)
NOTE NOTE		main 1d		SMG display screen id.
SET_NEW_MIN		kbd_Id		SMG keyboard 1d.
SET_NEW_MAX	subroutine GET NEW MIN	None		
GET_NEXT_ENTRY GET_NEXT_KEY TO SET_OF THE TEST TO	subroutine GET_NEW_MAX	None		
GET_NEXT_KEY test_lun 14 R GET_NEXT_KEY test_stat 12 H key_poss C^* R H key_poss C^* R R key_poss C^* R R col num 14 R R col num 14 R		test_lun		Test index file access LUN.
test_stat key_pos key_pos key_pos key_pos key_pos key_pos key_pos key_cond scro_id col num numlen terminator help_key default pud_id kbd_id kbd_id		test_lun	I4 R	Test index file access LUN.
key_os 12 R ecror_cond 8 R scrn_id 14 R col 14 R pbd_id 14 R pbd_id 14 R cofset 14 R col 14 R col 14 R col 14 R col 14 R <td< td=""><td></td><td>test_stat</td><td></td><td>Completion status (defined in INCLUDES:file_lo_def.inc):</td></td<>		test_stat		Completion status (defined in INCLUDES:file_lo_def.inc):
key scro_id scro_id row col num numlen terrainator help_key default pbd_id walld scroll_id toffset buffer stat valid stat toffset pbd_id stat volam pbd_id pbd_id stat toffset pbd_id stat col stat volam stat col stat toffset default id stat valid stat col stat stat col stat stat stat volam stat toffset default id stat stat col stat s		key pos		Key position of "key".
Scro_id B		X A		Key value for TEST.IND read.
scrn_id	subrouting GET NUM ENTRIES	error cond		Completion status - not defined in include file.
Cov	subrouting GET NUMBER	scrn 1d		SMG display screen id.
Manual		LOW	14 R	Display input row.
		col	I4 R	Display input column.
		שחש	3 71	Numerical value entered by user.
terminator terminator term		numlen	14 R	Langth of input field.
help_key		terminator	14 FI	
Deciant C		help key		Help key for current routine.
Pbbd_1d		default		Default input value.
	subroutine GET RECORD	ppd 1d	I4 R	SMG pasteboard 1d
Main_id		kbd 1d	14 R	SMG keyboard 1d.
Scroll_id		main 1d	I4 R	SMG display screen id.
Valid		scroll 1d		SMG display screen id.
buffer 14 R buffer 8 W W size valid 12 W sold 14 L1 W S bbd 14 L1 W Rbd 14 R		valld -	.1 3	Valid record retrieved flag.
buffer size size valid stat stat stat S pbd_id kbd_id rain_id rig_id XT ridey S set_lun sct_lun stat	subrouting GET REC FIELD	offset		Position of field in value file record.
## ## ## ## ## ## ## ## ## ## ## ## ##	1	buffer		Byte array to receive data fleid.
Stat		size		Size of field buffer.
Stat		valid		Validity byte of field retrieved.
GET_RELATIVE_POS Volnam C^* R GET_RELDS pbd_id 14 R rpt_id 14 R rpt_id 14 R rpt_id 14 R rpt_id 14 R rtg_id rtg_id rtg_id rtg		stat		Completion status (defined in INCLUDES:fille_io_def.inc)
GET_RPT_FIELDS pbd_id I4 R Red_id I4 R R R R R R R R R		volnam		Archival volume name.
NEW		phd_1d		SMG pasteboard 1d
main_id		kbd 1d		SMG keyboard 1d.
rpt_id		main 1d		SMG display screen id.
		rpt 1d		display screen
		pp_ pdq		
Ttg_id		אני זק		SMG keyboard 1d.
rtg_Id		main 1d		SMG display screen id.
T rdkey volnam volnam cxtension In set name cst N set lun dbsellun scrnid kbd id rdkbd id rdkey I rdke		rtq 1d		SMG display screen id.
volnam C* N in_set_name C12 N set_lun I4 R dbag_lun I4 R scrn_id I4 R kbd_id I4 R	subroutine GET SAVESET EXT	rdkey		Key value.
extension C* W in_set_name C12 R set_lun I4 R cfree_lun I4 R scfree_lun I4 R kbd id I4 R	1	volnam		Archival volume name.
10_set_name		extension		Archival save set extension.
set_lun	subroutine GET SET LABELS	in set name		Set name string.
14 14 14 R		set lun		Set file access LUN.
14 14 18		dbse lun		Value file access LUN.
I4 R		scrn 1d	14 R	SMG display screen id.
		kbd 1d	I4 R	SMG keyboard 1d.

Routine Name	Argument	Type Access	ss Description
substantian OFF OFT VARS	terminator	12 W	Terminator encountered in SMG read.
Subtoucing deligations	e cros		SMG display screen id.
	solor line id		SMG display screen id.
	obra 1d		SMG pasteboard 1d
	kbd 1d		SMG keyboard 1d.
	set var name	≠	Array of X, Y, and 2 parameter names.
CITORE GOODS BOOK TO A TO THE	The state of the s		SMG display screen 1d.
function del sounce italia	None		
MAC TOWN THE CONTROL OF	error cond	3	
SUPPLIES OF THE STATE OF THE ST	1 90	3	Test data type ((M)easured, (E)ngineering, etc.).
מתקופת ביו ביונים	terminator	12 W	Terminator encountered in SMG read.
SIAV GAV TOO ACT THE STATE	terminator	12	Terminator encountered in SMG read.
מתקנחתרוום פני איי אייי	sorn 1d	14 24	SMG display screen 1d.
	select line id	14 R	SMG display screen id.
	obrd td		SMG pasteboard 1d
	the to		SMG keyboard 1d.
	out row	14	Display row for input field.
	valbuff		Array of X, Y, and Z values.
	14b 140		Label file access LUN.
	to Jabal		Current label name.
With the HETD	pbrd 1d		SMG pasteboard 1d
	t bdx	14 R	SMG keyboard 1d.
	help kev		Help key for current routine.
	lovel	12 R	Lavel of help key path.
CHAPTERS HIT DROCESS TABLES	table 1d	I4 R	ID of RS/1 table one.
The state of the s	table1 1d	14 R	ID of RS/1 table two.
	CCMD10CK		RS/1 status afray.
subroutine Hil PROCESS TABLES	scrn 1d	14 R	SMG display screen 1d.
	lab Iun	I4 R	Label file access LUN.
	tables 1d	14 R	ID of RS/1 table three.
	comblock		RS/1 status array.
	stat3	12	Roturn status.
function 12 VAL	pointer	12 R	First element of a two-byte array.
function 14 KUN	Jnq	В	Buffer containing RUN field.
	form	<u>«</u>	Data type of RUN fleld.
	0218	12 R	Number of bytes in RUN fleld.
function 14 VAL	pointer	14 R	First element of a four-byte array.
	low	Record R	Data cell value record.
	mid		Data cell value record.
	h1gh	prope	Data cell value record.
	form	د ن	Type of data in data cell (R, I, C).
	size	12 R	Number of bytes in data cell.
subroutine INIT SESSION	None		
function INITIALIZE SESSION FILE SCAN	FILE_SCAN		
	file name	æ ů	Session file name.
subroutine INSERT PARM DATA	file_name		Parameter Ille name.
	area		Area in which data is to be inserted.
	name		Variable name to be inserted.
	position	12 R	Position in area where field to be inserted.
	length		Number of bytes of data for flerd inserted.
	d form	æ :	Format of data fleld inserted.
	description		Description of field inserted.

Routine Name	Argument	Type Access	Description
function KEYCHANGE	kev fleld	12 R	Key position.
	rdkev	æ	Key value.
	key len	12 R	Length of passed key fleld.
subroutine LABEL PARAM	scrn_1d	14 R	SMG display screen id.
subrouting LEVEL_OF_ACCESS	None	,	
subroutine LINE2TESTREC	line	æ ů	Character string containing test index record fields.
subroutine LIST2ARRAY	ALTAY	3	Array of character strings.
	array_cntr	12 W	Number of character strings in "array".
subroutine LIST LABELS	scrn_1d	14 R	
1	pbrd_1d	I4 R	
	kbd_1d	14 R	keyboard 1d.
subroutine LIST SETS	sern 1d	14 X	
	pbrd_1d	14 R	SMG pasteboard 1d
	kbd 1d	14 R	SMG keyboard 1d.
subroutine LOAD LABEL LIST	lab_lun	14 R	Label file access LUN.
	scrn 1d	14 R	SMG display screen id.
subroutine LOAD RS1 DATA	scrn_ld	I4 R	SMG display screen id.
1	kbd Id	14 R	SMG keyboard 1d.
	pbrd 1d	14 R	SMG pasteboard 1d
	EXIT RIN	External	Address of exit handler.
subroutine LOAD RS1 TABLES	scrn_1d	14 R	SMG display screen id.
ı	kbd Id	14 R	SMG keyboard 1d.
	pprd 1d	14 R	SMG pastaboard 1d
subrouting toan SET VAR VALS	in label	ر. د	Current label.
t	lab lun	14 R	Label file access LUN.
	val buff	R4	Array of X, Y, and Z values.
subrouting LOG MOD	ch log lun	14 R	Change log access LUN.
	label	α *υ	Label value of modified data cell.
	field type	<u>م</u> د	Data type of modified data cell.
	field len	12 R	Number of bytes for modified data cell.
			VALUE record offset of modified data cell.
	old field		Array of bytes containing previous data cell value.
	new field		Array of bytes containing new data cell value.
Subrouting MANAGE ENGR FILES	pprd 1d	14 R	SMG pasteboard 1d
	scrn 1d	14 R	SMG display screen id.
	kbd 1d	14 R	SMG keyboard 1d.
subroutine MGR_EXIT	None		•
subrouting MIN MAX SCAN	scrn_1d	I4 R	
ı	kbd_1d	I4 R	
	pbrd 1d	I4 R	pasteboard 1d
subroutine MIN MAX SCAN2	scrn_1d	I4 R	SMG display screen 1d.
1	klyd 1d	14 R	SMG keyboard 1d.
	pbrd 1d	14 R	SMG pasteboard 1d
subroutine MODIFY LABEL DESCR		14 R	SMG pasteboard 1d
1		14 R	SMG display screen id.
	kbd 1d	14 R	SMG keyboard 1d.
	lab_lun	14 R	Label file access LUN.
	dbse_lun	14 R	Value file access LUN.
	param file	ະ	Parameter file name.
	data file	* *	VALUE file name.

subroutine MOVE_BYTES to num_bytes subroutine MOVE_MEASURED_DATA pbrd_id subroutine NEW_SPEC function NEXT_TOKEN subroutine OPEN_ARCH_FILE subroutine OPEN_CH_LOG_FILE subroutine OPEN_DBSE subroutine OPEN_LABEL_FILE subroutine OPEN_LABEL_FILE subroutine OPEN_LABEL_FILE subroutine OPEN_LABEL_FILE subroutine OPEN_LABEL_FILE subroutine OPEN_USER_LOG subroutine OPEN_USER_LOG subroutine OPFN_USER_LOG subroutine OFFN_FILE subroutine OFFN_DSER_LOG subroutine FOSTITION None subroutine FOSTITION TEST_FILE key subroutine FOSTITION TEST_FILE key subroutine FOSTITION TEST_FILE key subroutine FOSTITION TEST_FILE key subroutine FOSTITION TEST_FILE sec_lun subroutine FOSTITION TEST_FILE key subroutine FOSTITION TEST_FILE	B 112 114 114 114 116 117 118 119 119 119	Source byte array. Target byte array. Target byte array. Number of bytes to copy. SMG display screen id. SMG display screen id. Nuw file specs. Input file specs. Input file specs. Input file specs. Referred from session log. Archival file access LUN. Completion status returned by OPEN command. Change log access LUN. Referred from scress LUN. Referred file to be opened. Source name string. Referred file access LUN. Referred file access LUN. Referred file from scress LUN. Referred file access LUN. Referred file.
RED_DATA P FILE G_FILE G_FILE G_FILE G_FILE FORT FORT	B 114 114 114 115 117 118 119 119 119 119 119 119 119 119 119	Target byte array. Number of bytes to SWG pasteboard id SWG display screen SWG keyboard id. Nuw file specs. Input file specs. Default file specs. Field read from se Archival file acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Test id name string Set file access Name of correspond Set file access LU
	12 14 14 16 17 18 19 19 19	Number of bytes to SWG pasteboard id SWG display screen SWG keyboard id. Nuw file specs. Input file specs. Default file specs. Field read from se Field read from se Archival file acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Test id name string Source name string So
	14 14 16 16 17 17 18 18 18 18 18 18	SMG pasteboard id SMG display screen SMG display screen SMG keyboard id. New file specs. Input file specs. Default file specs Field read from se Archival file acce Completion status Change log access name of change log access Name of file to be Source name string Test id name string Iabel file access Name of correspond Set file access Name of correspond Set file access Name of correspond Set file access Name of correspond
	IA Becord IA IA IA	SMG display screen SMG keyboard id. New file specs. Input file specs. Default file specs. Field read from se Richard file acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string
E FILE STITON TEELS STITON TEEL	TA BOOKE TO THE TANK	Now file specs. Now file specs. Input file specs. Default file specs. Field read from se Archival file acce Completion status Completion status Completion status Value file access Name of file to be Source name string Test id name string Test id name string Test id name string Source name string Test id name string Test id name string Source name string Test id name string Source name string Test id name string
FILE STITON LICE LE STITON LICE LICE LICE LICE LICE LICE LICE LICE	Record IA	New file specs. Input file specs. Default file specs. Default file specs. Eleld read from se Archival file acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Test id name string Ame of correspond Set file access Name of correspond
E E E E E E E E E E E E E E E E E E E	CA CA MACOFD 14 14 14 17 18 19 10 11	Input file specs. Default file specs Field read from se Archival file acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Test id name string Tabel file access Name of correspond Set file access
E E E E E E E E E E E E E E E E E E E	C* Record I4 I4 I14 I14 I14 I14 I14 I14 I14 I14 I	Default file specs Field read from se Archival file acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Test id name string Test id name string Set file access Name of correspond
E E E E E E E E E E E E E E E E E E E	Record 14 14 14 12 12 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Field read from se Archival file acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Label file access Name of correspond Set file access LL
E EILE STION LICE LE		Archival fils acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Iabel file access Name of correspond Set file access
E E E E E E E E E E E E E E E E E E E	777577	Archival file acce Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Label file access Name of correspond Set file access LL
TE ON	22525	Completion status Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Iabel file access Name of correspond Set file access LU
80 11	A 5 8 A 5	Change log access name of change log Completion status Value file access Name of file to be Source name string Test id name string Label file access Name of correspond Set file access LL
THE ON	5225	name of change log Completion status Value file access Name of file to be Source name string Test id name string Label file access Name of correspond Set file access LL
10 S	2 % 5	Completion status Value file access Name of file to be Source name string Test id name string Label file access Name of correspond Set file access LL
10N		
110N		
ION		
100 ILE	C8	
ITION ITION	C 80	
ITION LEFILE		
ITION CE FILE	ť	
ITION IT	* I	
CE CE FILE		_
LTION LT.	12	
ITION CE FILE		User log access LUN.
ITION I	C15	
TTION I	- >1	SMG
TITION	71	SMG display screen id.
TTION I	* I	SMS
ITION I	PI	SMC
TTION I	14	SMC
POP PIRST POSITION POSITION POSITION DEVICE POSITION TEST FILE	* I	
POP PIRST POSITION POSITION POSITION DEVICE POSITION TEST FILE	14	SMG pasteboard 1d
POP FIRST POSITION I POSITION DEVICE POSITION TEST FILE	* I	Element "popped" from stack.
POSITION_DEVICE POSITION_TEST_FILE		
	7 1	•
Key	12	Read access mode (defined in INCLUDES:Ille_lo_def.inc)
2014	ູ້ບໍ	•
TOTATEDO ANY		
Sinos		
Lest 1d	8 0	Test 1d name string for
system	້	
Component	ບໍ່	
7880 000	້	
	a C	-
10306111100) -	

Routine Name	Argument	Туре А	Access	Description
THE	dbae lun	14 R		Value file access LUN.
Subrouting Process_table	TT GLOS	I.A. R	۔	SMG display screen id.
	Jahal Dos		~	Position of label in "sl_label_array".
	nooer range	C12 R	~	Upper range for bound.
	lower_range		~	Lower bound for range.
subrouting PROCESS SESSION FILE	37			
	sess file	ž.	~	Session file name.
	error		-	Error flag.
	scrn 1d		~	SMG display screen id.
	root session name		3	File name without node/disk info.
subsout toe PROCESS TABLE2	1 label name	C12 F	æ	
Subtoucing Frocess_	1 num units	12 F	œ	Number of labels in "l_label_name" array.
	load Jun		æ	Table file access LUN.
	load name		œ	RS/1 meta file name.
STABLES DOCESS TABLES	scrn 1d		æ	SMG display screen id.
The second secon	load name		æ	RS/1 meta file name.
	lab lun	14	æ	Label file access LUN.
	load lun		œ	Table file access LUN.
	param file		æ	Test parameter file name.
	stat3		3	Return status.
SHINS DIRECT TO DESCRIPTIONS	scrn 1d		œ	SMG display screen 1d.
Supplemental Distriction	element		œ	Element "pushed" on stack.
tunction push FIRST POSITIO				
LUNCLION FORM FINAL SCHOOL STATES		14	~	Field offset position in "rec".
ביייי בייייי בייייי בייייי		æ	24	Byte array buffer that will be loaded into "rec".
	s 12.0	12	œ	Number of bytes to load into "rec".
	rec	8	R/W	Value fille record byte array.
	stat	12	3	Completion status (defined in includes: ille to detrine)
SHAPE DIT BYTES	out buf	C12	32	Output buffer containing converted value.
מחוום בסידור בחווים בסידור	byte buf		~	Byte array containing data to be converted to string.
	rec fleld form	U	æ	Output field data type.
•	rec field size	12	æ	Number of bytes in "byte buf" to use.
GIELD GIVANT THE SALES	offset	14	×	Position in value file record to contain tiesu.
מותר מותר מות ביי ביי ביי ביי ביי ביי ביי ביי ביי בי	puffer	4	~	Field to be loaded into value fille record.
	stza	12	*	Number of elements in "buffer".
	stat	12	3	Completion status (defined in INCLUDES: Lile_10_def., 1110)
subrouting pur KEY SCROLL OPTI				
	srce scrn 1d	14	æ	SMG display screen id.
	Item	ບໍ	~	Field for which options are displayed.
subrouting DIT LABEL FIELD	fleld	1	æ	Name of field to be modified.
Subtouching contractions	buffer	æ	3	Byte buffer containg fleld data.
	stze	12	×	Number of bytes in field.
	stat	12	3	Completion status (defined in INCLUDES: 1118 10 del. 1110)
INSM TOO and throught	dsp 1d	14	œ	SMG display screen id.
Subject to pur Option 1.15T	srce scrn 1d	14	æ	SMG display screen id.
substant the PIT PARAM DATA	par lun	* 1	œ	Parameter file access LUN.
	param file	ť	~	Parameter fille name.
	sern 1d	14	×	SMC display screen id.
	out row	1	3	Display output row.
	bottom of region	14	3	Last row of display output region.

Routine Name	9	Atguant	Type Access	
subroutine	subrouting PUT REC FIELD	offset	I4 R	Position in value file record to contain field.
		buffer	83	Field to be loaded into value fille record.
		# 12 e	12 R	Number of elements in "buffer".
		stat		Completion status (defined in INCLUDES:file_lo_def.inc)
subroutine	subroutine PUT SUBOPTION LIST	srce scrn 1d	14 R	SMG display screen 1d.
	ı	Item	Q.	Current item to be selected - Displayed in prompt.
function	QUERY_BOUND	scrn_1d	I4 R	SMG display screen id.
	1	row	I4 R	Display row for prompt.
		col	14 R	Display column for prompt.
		string	32	Returned string.
		kbd_1d	I4 R	SMG keyboard 1d.
		pbrd_1d	I4 R	SMG pasteboard 1d
		FOWS	I4 R	Number of rows in display to change.
		cols	14 R	Number of columns in display to change.
		QUIT_RIN	External	Address of exit handler.
function	R4 VAL	pointer	R4 R	First element of a four-byte array.
function	R6_VAL	pointer	R8 R	First element of an eight-byte array.
subrout 1 ne	subroutine RANGE_CHECK	dbse_lun		Value file access LUN.
		key_label		Label used to retrieve value file record.
		cell	cord	Used to define a value file data cell.
		cell_format		Format of value file data cell.
		cell_size		Number of bytes in value file data cell.
subrouting	subroutine READ_ARCH_REC	arch_lun		Archival file access LUN.
		function		I/O access function (defined in INCLUDES:file_10_def.inc)
		rdkey	_	Key value.
		key_len		Length of passed key fleld.
		key_mode	_	Key type (Defined in includes: file 10 def.inc)
		stat	3	Completion status returned by READ command.
subroutine	subroutine READ_CH_LOG_REC	ch_log_lun	14 R	Change log access LUN.
		function		I/O access function (defined in INCLUDES:file_lo_def.inc)
		rdkey		Key value.
		key_len		Langth of passed key field.
		stat		Completion status (defined in INCLUDES:fille_io_def.inc)
subrouting	subroutine READ_DBSE_REC	rec_label		Key value for keyed read.
		dbse_lun		Value file access LUN.
		mode		Read access mode (defined in INCLUDES:file to def.inc)
		stat		Completion status (defined in INCLUDES:file_lo_def.inc)
subrouting	subroutine READ DBSE_REC_HDR	rec_label	C. R	Key value for keyed read.
	i !	dbse_lun	I4 R	Value file access LUN.
		тоде	12 R	Read access mode (defined in INCLUDES:file_lo_def.inc)
		stat		Completion status (defined in INCLUDES:file_io_def.inc)
subrouting	subroutine READ FIELDS	get_1d	14 R	SMG display screen id.
	ŀ	prompt_col	14 R	Display column at which prompt is displayed.
subrouting	subroutine READ FIRST DBSE REC			Value file access LUN.
•	1	stat		Completion status (defined in INCLUDES:file_io_def.inc)
subroutine	subroutine READ LABEL	label	C.A. R.	Key value for keyed read.
	ı	lab lun	14 R	Label file access LUN.
		abou	12 R	Read access mode (defined in INCLUDES:file to def.inc)

CA R R 14 R R R 14 R R R 14 R R R R R R R	Mouthing Name) rgument	Type	Access	Description
New	į	11 nam	ť	œ	Session file name.
#DR set_label		thse lun	¥I.	24	Value file access LUN.
### SCREEN #### SCREEN #### SCREEN ### SCREEN #### SCREEN ##### SCREEN #### SCREE		scru 1d	7	æ	SMG display screen 1d.
#DR set_label		TO TO	Ţ	×	Error message row.
### Sec_label C C R R Set_lun mode		rr col	Ţ	×	Error message column.
### Set_lun		set label	ů	~	Key value for keyed read.
School		set lun	14	~	Set file access LUN.
Stat		epou	12	×	Read access mode (defined in INCLUDES:file_to_def.inc)
set_label		Stat	12	3 E	Completion status (defined in INCLUDES:file_lo_def.inc)
Set_lun		set label	ໍ່ວ	æ	Key value for keyed read.
Mode		set lun	¥1	œ	Set file access LUN.
Stat		node	12	æ	Read access mode (defined in INCLUDES:file_lo_def.inc)
Log_lun	•	stat	12	3	Completion status (defined in INCLUDES:file_lo_def.inc)
AX_SCREEN SOURCE LOST 1d LYPE NOONE AX_SCREEN SCREEN SCREEN SCREEN SCREEN SCREEN SCREEN SCREEN 114 R SCREEN 115 R 114 R 114 R 114 R 115 R 114 R 115 R 115 R 115 R 115 R 116 R 117 R 118 R 119 R		log lun	14	*	User log access LUN.
Sast_name		log stat	:	3	Completion status (TRUE/FALSE)
cource set_id ce W set_id ce W sype co W co C co W co W co C co		user name	C15	3	User name.
### ### ### ### ### ### ### ### ### ##		source	80	3	Source name string.
Second S		test 1d	8	3	Test 1d name string.
Start Dos 14		type	U	*	Data type.
scrn_id	NASOUS MADDOOR CONTINUES				•
stare_los stare_los stare_los stare_los stop_of_region screen_column screen_column screen_column screen_do list	SCOULTRE REDRANGSCREEN	2			
		7	14	œ	SWG display screen id.
		start nos	12	×	First "list" element to be displayed.
			12	. ~	last "list" alement to be displayed.
it i		too of reaton	12	; ox	Too of disolay output region.
tt can and a can a			13	· 2	Output column.
ie lun				. 0	Character string array.
		196	; ر:	4 6	CHAIRCOOL SCHOOL SERVICE .
10g 1d		dbse_lun	-	¥.	TITE TOO TO THE PROPERTY OF TH
10g_1d		scrn_1d	Ť	œ	SMG display screen 1d.
14	1	ch_log_1d	14	æ	SMG display screen id.
14 R R R R R R R R R	prouting REMOVE_INVALID_OFFSE	ıs			
	1	label_pos	7 1	œ	Label position in "sl_label_array".
Iabel_1d		dbse lun	7 1	æ	Value file access LUN.
REMOVE_LAST_QUEUE_ENTRY None RENAME_LABEL Old_name C* R New_name C* R		label 1d	C12	3	
None RENAME_LABEL Old_name C* R REPLACE_QUEUE_ENTRY q pos I4 R REPLACE_QUEUE_ENTRY q pos I4 R RESET_POSITION cab Record W RESET_POSITION cab I4 R RESTORE main_id I4 R ALCh_id I4 R RECORD I4 R RESTORE moin_id I4 R RESTORE II4 R	REMOVE_LAST_QUEUE_EN	TRY			
RENAME_LABEL		None	i	(
REPLACE_QUEUE_ENTRY q.pos		old_name	•	× ,	Label name currently in tite.
REPLACE_QUEUE_ENTRY q_pos 14 R rab ne REP_EXIT None RESTORE main_id 14 R arch_id Record W Arch_id R Record W I4 R Arch_id I4 R Redoil I4 R Arch_id I4 R Redoil I4 R	l	new_name	ໍ້ນ	œ	Label name to replace "old name" entiles.
None Record R None Resert None Resert None Resert None Record None No	REPLACE QUEUE ENTRY	sod b	7.	œ	Queue position to be replaced.
None	1	व	Record	×	Record Access Block.
SiTION Fab Record W Pbd 14 R R R R R R R R R		None			
pbd 1d 14 R arch 1d R arch 1d 14 R main 1d 14 R monitor L1 R	SITION	den	Record	3	Record Access Block.
main_id		photo 1d	14	œ	SMG pasteboard 1d
17 T T T T T T T T T T T T T T T T T T T		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7	i oz	SWG display screen 1d.
I. I		T ACT	7 1	; a	SMG display screen id.
			: :	; a	SMC havboard 1d.
L1 K		KDQ_1Q	-	٤ ،	State Advanta tuti
		monitor	77	×	DISDIAY ACCIIVAL COMMANDS CO SCIENCE.

Routine Name	Argument	Type	Access	Description
SOLVE SECTION DESCRIPE SESSION	sern 1d	T I	œ	SMG display screen id.
	kbd 1d	14	œ	SMG keyboard id.
	pbrd 1d	14	æ	SMG pasteboard 1d
	previous screen	רו	3	Return to previous screen flag.
	root session name	ů	3	Session file name.
subroutine RES PARM FILE	file name	ů	æ	Parameter file name.
subrouting SAVE FIELD	active record	12	×	Current label parameter fleld.
1	stat	12	32	Completion status (defined in INCLUDES:fille_lo_def.inc)
	scrn 1d	14	œ	SMG display screen id.
	message	3	3	Message display flag.
function SAVE POSITION	rab	Record	~	Racord Access Block.
9	token	t	~	Item to be found in list.
	scan stat	12	3	Completion status (defined in INCLUDES:fille_lo_def.inc).
	list item	ů	3	Item matching "token".
	list_len	12	~	Langth of list to be searched.
	list_pos	12	R/H	List position of matching element.
	1181	ů	æ	Array of character strings to be searched.
subroutine SCROLL KEYS	key position	12	œ	Record key position.
	key	ť	œ	Record key value.
	terminator	12	*	Terminator encountered in SMG read.
subrouting SCROLL SOURCES	read mode	12	æ	Read access mode (defined in INCLUDES:file_io_def.inc)
	key	ູ້	∝ ;	Record key value.
	key position	12	∝	Record key position.
	r source	8	~	Source name string.
	rtestid	80	œ	Test 1d name string.
	terminator	12	3	Terminator encountered in SMG read.
subroutine SCROLL TESTS	lun	14	œ	Scroll file access LUN.
•	key_mode	12	œ	Key type (Defined in INCLUDES: file_lo_def.inc)
	access key	ចំ	×	Key to be matched by scrolled records.
	key len	12	∝	Length of passed key fleld.
	dsp_1d	₽ I	æ	SMG display screen id.
	scrn 1d	14	æ	SMG display screen id.
	kbd 1d	1	×	SWG keyboard 1d.
Subjouting SCROLL VALIDATION	dbse lun	1.	~	Value file access LUN.
	scroll 1d	1.4	∝.	SMG display screen id.
	pbrd 1d	11	œ	SMG pasteboard 1d
	kbd 1d	14	œ	SMG keyboard 1d.
subroutine SELECT MATCH	pattern	ပ်	~	Input pattern to be matched.
*	scan stat	12	38	Completion status (defined in INCLUDES: fille_lo_def.inc)
•	list_size	12	æ	Number of elements in "list".
-	position	12	3 E	that match
	1181	ច	*	Array of character strings to search.
	scrn 1d	1	æ	SMG display screen id.
	kpd 1d	1	~	SMG keyboard 1d.
	pbrd 1d	¥I	œ	SMG pasteboard 1d
subrouting SESS FILE READ ERR		Record	œ	Field processed from input.
משונסתרוון זריז ויהודי שונים		້	×	Label name string.
	err type	* 1	æ	Error type.
	scrn 1d	¥I	œ	SMG display screen id.
	BEE KOM	14	æ	Error message display row.
	(00)	14	×	Error mussage display column.
	TOD IJ	F	:	The Parties of the base of the same of the

ROULTH'S NAME	2	- 11 cm 5 · 4	116		
subrout too	subrouting SET DASE REC	rec label	ບໍ	œ	Key value for value file read.
		dbse lun	14	œ	Value file access LUN.
		mode.	12	æ	Read access mode (defined in INCLUDES:fille_io_def.inc)
		14.13	12	3	Completion status (defined in INCLUDES:fille lo_def.inc)
William State of the control of the	9113 430	1 4	Record	: oc	Record Access Block.
air inoime	777	11 500	14	æ	File position.
		4 to 1	12	3	Completion status (defined in INCLUDES:file_io_def.inc)
out thought	subrecut too SET ETTE DOINTER	Jan Jan	14	æ	VALUE file LUN.
		O year	80	æ	Key 0 match value.
			C12	~	Key 1 match value.
		D kev 2	C12	~	Key 2 match value.
		2 7 7 1 C	C12	4	Key 3 match value.
		key mode	12	æ	Key position.
subrout ing	subrouting SET MIN MAX	bytes	Ø	3	Byte array to receive min/max value.
		form	ប	æ	Field data type (R,C,I).
		Jenoth	12	œ	Field length (bytes).
		minmax	12	×	Minimum/maximum value flag.
function	SET MODE	ppd 1d	14	×	SMG pasteboard 1d
function	SET PROT USEROPEN	fab	Record	3	File Attributes Block.
		del	Record	œ	Record Access Block.
		Jan Jan	14	œ	LUN of file to be opened.
subrouting SET VAL	SET VAL	dbse lun	14	æ	Value fille access LUN.
		rel pos	12	3	Relative position after data loaded.
		max rel pos	12	æ	Maximum relative position before data loaded.
subrout toa	subrouting SET VALIDITY	onl esch	14	æ	Value file access LUN.
	1	relative pos	12	24	Offset in VALUE file record.
subroutine	subroutine SET VOLPOS	None			
subroutine	subroutine SHIFT ARRAY	num positions	12	R/M	Number of offsets in offset array.
	I	pos list	12	R/W	Offset array.
subrout toa	subrouting SKIP WHITE SPACE	should skip comments	ij	×	Skip comments flag.
Subrout to SORTER	SORTER	Jun	14	æ	Test index LUN.
		status	14	3 E	System completion status.
subrout tos	SORT LABEL ARRAY	S CON			
subrout ton	STAT MSG	Stat	1	æ	SMG status to be displayed.
subrout ina	STOP PROC	pt pdu	14	œ	SMG pasteboard 1d
function	STRIEN.	string	ů	œ	Input string.
subrout for		byte buf 1	2	×	Source buffer byte array.
		byte buf 2	•	3	Target buffer byte array.
		160	12	~	Number of bytes to copy.
subrout toe	subrout toe TOGGLE NONULLS	label pos	14	24	Label position in "sl_label_array".
		valld only	:	X/W	Valid data collection flag.
subrouting	subrouting TESTRECZLINE	line	ů	3	Record output buffer.
function	TEST ENGH ACCESS	in source	8 0	×	Source name string.
	\ \ \	in test 1d	8	œ	Test id name string.
subscout too	subscourt to fini OCK DRSE REC	dbae lun	14	æ	Value file access LUN.
an ranciome		stat	12	35	Completion status (defined in INCLUDES:fille_lo_def.inc)
4	COCCAO LANK L ASCURA CONTRACTOR	110	14	œ	Label fille access LUN.
		יים דיים דיים דיים דיים דיים דיים דיים		:	

Routine Name	Argument	Type	Access	Access Description
				Minter of rough to coroll 110
	DUM TOWS	<u>.</u>	×	NUMBER OF TOWN OF STREET
Subtouctile of		71	~	Address of RAB record.
	במם שחתו			Second file access IIIN
	lun	* 1	×	SCIOII TITA TOCATA TOM
	arra to	14	æ	SMG display screen id.
		:	7/0	string to be converted.
subroutine UPCASE	instring	נ	E 2	
SUBSTRUCT FOR INDIATE DATA POINTERS	107			
	acrn 1d	14	æ	SMG display screen id.
	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	71	2	SMG pasteboard 1d
	ppra_ra	•		the product of the
	kbd 1d	14	×	SMC Keyboard 14:
Secretor Honard FILE POSITION	1			
	den	Record	3	Record Access Block.
SAUNTON TABLE DESCRIPTION OF THE PROPERTY OF T				
Supront in a property and an incides	70	7	×	SMG display screen id.
			æ	SMG keyboard 1d.
	Kpd 1d	-	.	
	o label 1d	C12	~ .	Label name.
	dhea Jun	14	×	Value file access LUN.
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	e u	æ	Value file name.
		. =	. 3	Massage present flag.
	Deur de La Caracia de La Carac	:		
	valid only	ជ	R/W	Valld data collection tray.
Nagely strength of particulation	sern 1d	¥I	~	SMG display screen 1d.
SUDJOULTILE OFDER	del min	12	α .	Number of labels loaded.
	max rollofr	12	œ	Largest relative pointer used.
	+ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		. ~	Source name string.
subrouting UPDATE SELECT FINE		: :	. 0	mast id name string.
	test_ld	_כ	٤ ;	
	Lype	ပ	x ,	Data Cype accessed (c,m,)
SCHAMIUG AND ABROCKS TO FATTER		14	œ	SMG display screen id.
Subfournie of Dail and Subject of Dail	T T T T T T T T T T T T T T T T T T T	7	œ	SMG keyboard 1d.
	7		. 02	Set name string.
		•	: :	NIL CONTRACTOR AND
	set lun	+ :	×	Set tile access ton.
	sat_f110	ڻ ٽ	* .	Set file name.
	Chica Tun	14	×	Value file access LUN.
		1	3	Message currently displayed flag.
STAGE BOOK CONTRACTOR		i sa	æ	Archival flag for "arch_rec".
subroutine UPDATE_TEST_FILE	Part_ 110		i	

Routine Name	Argument	Туре	Access	Description
subrouting UPDATE WINDOW	old top	7.	æ	Previous record index displayed at screen top.
	old bot	14	×	Previous record index displayed at screen bottom.
	oldTeft	¥I	æ	Previous cell position displayed on screen left.
	old_right	14	×	Previous cell position displayed on screen right.
	new top	14	æ	Current record index displayed at screen top.
	nuw bot) 1	~	Current record index displayed at screen top.
	now left	¥1	~	Current cell position displayed on screen left.
	now_r 19ht	11	~	Current cell position displayed on screen right.
	scrn but	a	æ	Byte array containing display records.
	cs lab	C12	*	Array of field namus.
	fleld form	U	&	Array of display cell data types.
	fluldlen	<u>.</u>	œ	Array of display coll fleid lengths.
	ruc 1en	<u>.</u>	×	Array of display record lengths.
	rd stat	12	×	Array of data coll intornal READ stats.
	first	7.	3	Position of first queue entry.
	last	=	3	Position of last queue entry.
	label list	ů	×	Array of kuy flelds for scrown record READs.
	scrn_1d	- 1	×	SMG display scruen id.
	ch_log_lun	7	×	Change log access LUN.
	ch_log_present	11	œ	Change log present flag.
	update stat	=	~	lait over from previous version.
	view only	:	æ	View/Edit data flag.
subroutine USER EXIT	None			
function VALID	terminator	12	3 =	Terminator encountered in SMG read.
function VALID_OPTION	option	U	æ	Outlon selected.
•	out ion_list	ដ	×	String of valid option characters.
	turminator	12	×	Terminator encountered in SMG read.
	valld_terminator	12	æ	Valld terminator value.
subtouting VERIFY_VOLUME	error_cond	æ	3	Completion status - not defined in include file.
ı	NOW FOC	Record	~	Archival record.
subtouting VIEW_CHANGE_LOG	pprd 1d	<u>.</u>	×	SMG pasteboard 1d
	ch_log_ld	-	æ	SMG display screen 1d.
	אוים ום	<u>*</u> I	×	SMG keyboard 1d.
	selected	=	3	Field selected flag.
	rotutn_buff	Δ,	3	Byte buffer containing selected fleld.
subrouting VIEW_LABELS	scrn_id	7	×	SMG display screen id.
ı	pbrd_1d	7.	æ	SMG pasteboard 1d
	אורת זים	Ŧ	×	SMG keyboard 1d.
	duse lun	¥.	œ	Value file access LUN.
	dbse_file	* 50	×	Value file name.
	valld_only	r,	×	Valid data cullection flag.
subrouting VIEW_REPORT	ppd_1d	11	œ	SMG pasteboard 1d
ı	केंग्नि 1व	14	×	SMG keyboard 1d.
	main_1d	-	æ	SMG display screen 1d.
	scroll_1d	.	œ	SMG display actoon id.

Houtine Name	Argument	Type Ac	Access Description
subrouting VIEW SETS	scrn 14	14 K	SMG display screen 1d.
	obrd 14	I.4	SMG past aboard 1d
	khd 1d	14	SMG keyboard 1d.
	set lun	1.	Set file access LUN.
	dbse lun	7. A	Value file access LUN.
	set file	C44 R	Sot file name.
TOANT TOAT TO NET TOAT	Topo det	æ	Echo default string flag. "echo_def = 0" no echo.
	string	33 *J	Ruturnud string.
	Jength	12 R	Maximum input string longth.
	dsp 1d	× **	SMG display scroen id.
	kbd 1d	14 R	SMG keyboard 1d.
	LON	14	Display row for data ocho.
	col	14 R	Display column for data ocho.
	Lerminator	12 W	Terminator encountered in SMG read.
	(111	<u>ح</u> ن	String filler character.
	Case	12 R	Upper case conversion flag. (INCLUDES:file_lo_def.inc)
subrouting WEED OUT POS	relative pos	12 H	Offset position array.
1	rel pos num	12	Number of entries in "relative pos".
	dbse_lun	14 R	Value file access LUN.
function WILDCARD	wild pattern	<u>د</u> ن	Original seluction mask.
	test pattern	<u>ح</u>	Item to be compared to "wild pattern".
subrouting WRITE ARCH REC	arch lun	*	Archival fills access LUN.
i	stati	3	Completion status returned by WRITE command.
subrouting WRITE BUFFER	out buff	3	Output buffer - string version of field selected.
	ch fleld type	<u>ح</u>	Data type of data cell.
	ch fleld len	12 R	Field length of data cell.
	Cav form		Output format for Internal WRITE.
	val buff	Record E	Buffer containing selected field.
subjoint the WRITE CH LOG REC	ch Iva Jun	14 R	Change log access I.UN.
	function	12 R	1/0 access function (defined in INCLUDES:file_lo_def.inc)
	stat	12 H	Completion status (defined in INCLUBES: file_io_def.inc)
subjouting WRITE DBSE REC	dbse lun	× •	Value file access LUN.
1	stat	12 H	Completion status (defined in INCLUDES:file_lo_def.inc)
	node	12 R	Write accuss mode (defined in INCLUBES:file_lo_duf.inc)
subrouting WRITE INVIEW MSG		≈	invalid text string.
Subroneing WRITE INVIEXREC MSG		۳ د.	Ivalid text string.
1		I4 R	invalid record number.
	£11e	* °	Name of file being processed.
subrout the WRITE LABEL	lab lun	I4 R	Label file access LUN.
	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12 E	Completion status (defined in INCLUDES:fille_io_def.inc)
	mode	12 R	Write accuss mode (dufined in INCIODES: file_lo_def.inc)
Subrouting WRITE SESSION FILE	(1) nam	ະ	Sussion file name.
	labuls	ž	Array of label names.
	Kanges	Record	Array of range record.
	num labels	12 R	Number of entries in "labels".
subrouting WRITE SET REC	sot_lun	I4 R	Sut file access IUN.
1	stat	12 H	Completion status (defined in INCLUDES:file_lo_def.inc)
	mode	12 R	Write access mode (defined in INCLUDES:fille_lo_def.inc)

	(E, M,)
Type Access Description	User lug access LUN. User name. Source name string. Test id name string. Data type accessed (E,M,).
Access	**
Type	71 20 20 20 20 20 20 20 20 20 20 20 20 20
Argument	log lun usor name source test_ld
Routine Name	subrouting WRITE USER LOG logiun 14 R User log access LUN. usor_name C15 R User name. source C6 R Source name string. test_id C R Test id name string. type accessed (E,M,).

Appendix C DATABASE SYSTEM FILE RECORD FORMATS

AFAS DATABASE SYSTEM HELP FILES

<code_section>.HLP

These are help files for the corresponding code sections. The files contain eighty column ASCII text records created by editor. Help entries are defined by creating a help "tag" followed by the associated help text. A tag is created by inserting a "#" followed by a unique help path string. Each path entry in the path string must be a single character and path entries must be separated by a period. An example of a valid help tag is "#1.A.G". Any text lines following a help tag are associated with that tag. The help text for a help tag is terminated when another help tag or "#end" is encountered.

FILENAME : [DBSE] < code_section > . HLP

TYPE : Sequential $\overline{\mathbf{w}}$ ith variable record length.

RECORD LENGTH : Maximum 79 bytes.

MASTER ARCHIVAL FILE

FILENAME : [DBSE] ARCH_MASTER.FIL

TYPE : Indexed with fixed record length.

PRIMARY KEY: volnam SECONDARY KEYS: src_testid RECORD LENGTH: 200 bytes

FIELD NAME	TYPE	DESCRIPTION
volnam src_testid saveset media date text comment relpos filler	char*12 char*17 char*17 char*20 char*9 char*60 char*60 integer*4 byte	Archival volume name. Archived source/test_id. Archival save set name. Archival media type. Archival date. Descriptive text from test index file. Archival comment field. Position of save set on archival volume. Used to fill record.

FDL FILE FOR ARCH_MASTER.FIL

TITLE	"File Name : DBDISK:[DBS	SE]ARCH_MASTER.FDL"
IDENT	9-AUG-1990 14:21:54	VAX-11 FDL Editor"
SYSTEM	SOURCE	"VAX/VMS"
FILE	NAME ORGANIZATION	"dbdisk:[dbse]arch_master.fil" indexed
RECORD	CARRIAGE_CONTROL FORMAT SIZE	none fixed 200
AREA 0	ALLOCATION BEST_TRY_CONTIGUOUS BUCKET_SIZE EXTENSION	15 yes 3 3
AREA 1	ALLOCATION BEST_TRY_CONTIGUOUS BUCKET_SIZE EXTENSION	6 yes 3 3
AREA 2	ALLOCATION BEST_TRY_CONTIGUOUS BUCKET_SIZE EXTENSION	12 yes 3 6
KEY 0		no 0 100 no no yes 1 no 100 1 "Volume name" 3 12 0 string

FDL FILE FOR ARCH_MASTER.FIL (Concluded)

KΞ	Ÿ	1

CHANGES	ye s
DATA AREA	2
DATA FILL	100
DATA KEY COMPRESSION	no
DUPLICATES	yes
INDEX_AREA	2
INDEX COMPRESSION	no
INDEX FILL	100
LEVEL1 INDEX_AREA	2
NAME	"Source/Testid"
SEGO LENGTH	17
SEGO POSITION	12
TYPE	string

INCLUDE FILE FOR ARCH_MASTER.FIL

C

C C

c c

```
ARCH_REC_DEF.INC
This include file describes the archival file records.
      parameter
                       volume key
                                                0
                                                        !primary key pos.
                                                1
                                                        !secondary key pos.
     parameter
                      srctst_key
      structure /arch/
                      volnam
                                       *12,
                                                !Volume name
                                                                  - Key 0
         character
                                                !Source//Test ID - Key 1
                                       *17,
      1
                       src tstid
                                        *17,
                                                !Save set name
      1
                       saveset
                      media
                                       *20,
                                                !Media type
      1
                                       *9,
                                                !Archival date
                      date
      1
                      text
                                       *60,
                                                !Descriptive text
      1
                                       *60
                                                !comment field
                      comment
      1
                                       !Relative position on volume
         integer*4
                      relpos
                                                !record filler
         byte
                      filler
      end structure
      record /arch/ arch_rec
                       source
                                        *8,
                                                !source
      character
                                                !test ID
                       testid
                                        ×8,
      1
                       device
                                        *10,
                                                !device name
      1
                                       *5,
                       dbs_dev
                                                !test storage device
      1
                                        *12,
                                                !requested volume
      1
                       req_volnam
                       req_saveset
                                        *17,
                                                !requested save set
      1
                       req_date
                                        *9
                                                !requested date
                                                !device file markers
                      marks_per_file
      integer*2
                                                !entries on device
                      num_entries
      integer*4
      common /archival/ arch_rec,
                         source,
                         testid,
                         device,
      1
                         dbs_dev,
      1
                         req_volnam,
      1
      1
                         req saveset,
      1
                         req date,
      1
                         marks per file,
      1
                         num_entries
```

TEST INDEX FILE

FILENAME : [DBSE] TEST.IND

TYPE : Indexed with fixed record length.

PRIMARY KEY : source

SECONDARY KEYS: test_id, system, component, test_engr, test_cntr

RECORD LENGTH : 196

FIELD NAME	TYPE	DESCRIPTION
source	char*8	Source of test data.
test id	char*8	Test ID of test data.
	char*12	
component	char*12	Component associated with test data.
test_engr	char*16	Engineer associated with test data.
test_cntr	char*16	Contractor associated with test data.
num_runs	integer*4	
test desc	char*60	Description of test.
dbs_device	char*5	Test storage device.
	char*8	
test_comp_date	char*8	Test completion date.
arc m flag	byte	Measured data archival flag.
arc_m_vol	char*6	Last measured archival volume name.
	byte	Engineering data archival flag.
	char*6	Last engineering archival volume name.
test_right	char*10	Access restriction identifier.
test_prot	char	Test protection flag. "P" indicates protected data.
num dbs labels	integer*4	Number of labels loaded for test.
dbs_scale	real*4	Scale factor.
		List of available type extensions.

FDL FILE FOR TEST. IND

```
"File Name : DBDISK:[DBSE]TEST.FDL"
TITLE
        "12-JAN-1990 09:39:27 VAX-11 FDL Editor"
IDENT
SYSTEM
                                 "VAX/VMS"
        SOURCE
FILE
                                 28
        ALLOCATION
        BEST_TRY_CONTIGUOUS
                                 no
                                 2
        BUCKET_SIZE
                                 2
        CLUSTER SIZE
        CONTIGUOUS
                                 no
        EXTENSION
                                 0
        GLOBAL_BUFFER_COUNT
                                 "[DBSE]TEST.IND"
        NAME
                                 indexed
        ORGANIZATION
                                 [1,1]
        OWNER
                                 (system: RWED, owner: RWED, group: RWE, world: RWE)
        PROTECTION
RECORD
                                 yes
        BLOCK SPAN
                                 none
        CARRIAGE_CONTROL
                                 fixed
        FORMAT
                                 196
        SIZE
AREA 0
                                 28
        ALLOCATION
                                 2
        BUCKET SIZE
                                 0
        EXTENSION
KEY 0
                                 no
        CHANGES
        DATA AREA
                                 0
        DATA_FILL
                                 100
        DATA_KEY_COMPRESSION
                                 yes
        DATA RECORD COMPRESSION yes
                                 yes
        DUPLICATES
        INDEX AREA
                                 yes
        INDEX_COMPRESSION
        INDEX_FILL
                                 100
        LEVELT_INDEX_AREA
                                 m 11
        NAME
                                 по
        NULL KEY
                                 3
        PROLOG
                                 8
         SEGO_LENGTH
                                 0
         SEGO_POSITION
                                 string
        TYPE
```

• • • •

FDL FILE FOR TEST.IND (Continued)

KEY	1		
		CHANGES	yes
		DATA_AREA	0
		DATA_FILL	100
		DATA_KEY_COMPRESSION	yes
		DUPLICATES	yes
		INDEX_AREA	0
		INDEX_COMPRESSION	yes
		INDEX_FILL	100
		LEVEL1_INDEX_AREA	0
		NAME	
		NULL_KEY	no
		SEGO_LENGTH	8
		SEGO_POSITION	8
		TYPE	string
	_		
KEY	4	CHANGES	yes
		DATA_AREA	0
		DATA FILL	100
		DATA KEY COMPRESSION	yes
		DUPLICATES	yes
		INDEX AREA	0
		INDEX_COMPRESSION	yes
		INDEX FILL	100
		LEVELI_INDEX_AREA	0
		NAME	17 10
		NULL_KEY	no
		SEGO_LENGTH	12
		SEGO_POSITION	16
		TYPE	string
	_		
KEY	3	CHANGES	yes
		DATA AREA	0
		DATA_FILL	100
		DATA KEY_COMPRESSION	yes
		DUPLICATES	yes
		INDEX AREA	ō
		INDEX_COMPRESSION	yes
		INDEX_FILL	100
		LEVEL1 INDEX_AREA	0
		NAME	**
		NULL_KEY	no
		SEGO_LENGTH	12
		SEGO_POSITION	28
		IXSE	string

FDL FILE FOR TEST.IND (Concluded)

KEY	4		
		CHANGES	yes
		DATA_AREA	0
		DATA_FILL	100
		DATA_KEY_COMPRESSION	yes
		DUPLICATES	yes
		INDEX_AREA	0
		INDEX_COMPRESSION	yes
		INDEX_FILL	100
		LEVEL1_INDEX_AREA	0
		NAME	n n
		NULL_KEY	no
		SEGO_LENGTH	16
		SEGO_POSITION	40
		TYPE	string
KEY	5		
		CHANGES	yes
		DATA_AREA	0
		DATA_FILL	100
		DATA_KEY_COMPRESSION	yes
		DUPLICATES	yes
		INDEX_AREA	0
			yes
			100
		LEVEL1_INDEX_AREA	0
		NAME	n n
		NULL_KEY	no
		SEGO_LENGTH	16
		SEGO_POSITION	56
		TYPE	string

INCLUDE FILE FOR TEST. IND

```
c This file defines the TEST.IND data record contents.
c Display sizes for test_rec fields
                                      - 8
                                              !source
                       source len
        parameter
                                              !test id
                                      - 8
                       test id len
        parameter
                       system_len
                                             !system
                                      = 12
        parameter
                       component_len = 12
                                             !component
        parameter
                       test_engr_len = 16
                                             !test engineer
        parameter
                       test_cntr_len = 16
                                             !contractor
        parameter
                                             !number of runs entered
                       num_runs_len = 8
        parameter
                                             !comment field
                       test_desc_len = 60
        parameter
                       dbs_device_len = 5 !storage device
        parameter
                       test_start_len = 8
                                              !starting date
        parameter
                       test_comp_date_len = 8 !completion date
        parameter
                       arc_m_flag_len = 1 !# of meas. data arch. sets
        parameter
                                             !last meas. arch. set name
                       arc_m_vol_len = 6
        parameter
                                             !# of eng. data arch. sets
                       arc_e_flag_len = 1
        parameter
                                             !last eng. arch. set name
                       arc_e_vol_len = 6
        parameter
                       test_right_len = 10 !rights protection field
        parameter
                                             !proprietary protection field
                       test_prot_len = 1
        parameter
                       num_dbs_labels_len = 8 !# of labels loaded
        parameter
                       dbs_scale_len = 8
                                             !scale factor
        parameter
                                              !available file exts. (M, E, ...)
                                       - 6
                       dbs exts len
        parameter
        structure /test_ind_record/
                                               *(source len)
                               source
                character
                                               *(test_id_len)
                               test_id
                character
                                               *(system_len)
                               system
                character
                                               *(component_len)
                               component
                character
                                               *(test_engr_len)
                               test_engr
                character
                                               *(test_cntr_len)
                               test_cntr
                character
                                              !# runs in the test
                               num_runs
                integer*4
                                              *(test desc_len)
                               test_desc
                character
                                              * (dbs device_len)
                               dbs_device
                character
                                               *(test_start_len)
                               test_start
                character
                               test_comp_date *(test_comp_date_len)
                character
                                               !measured archival flag
                               arc_m_flag
                byte
                                               *(arc_m_vol_len)
                               arc_m_vol
                character
                               arc_e_flag
                                               !eng. archival flag
                byte
                                               *(arc_e_vol_len)
                               arc_e_vol
                character
                                               *(test_right_len)
                               test_right
                character
                                               *(test_prot_len)
                               test_prot
                character
                                num_dbs_labels !# labels loaded
                integer*4
                                               !scale factor
                               dbs_scale
                real*4
                                               *(dbs_exts_len)
                               dbs_exts
                character
        end structure
         record /test_ind_record/ test_rec
         record /test_ind_record/ access_rec
         common /test_ind/ test_rec, access_rec
```

USER LOG FILE

This is the test access log. A record is entered for each user of the database system. The record stores the last test accessed by each user. Each record is 32 bytes long.

FILENAME : [DBSE]USER_LOG.LOG

TYPE : Indexed with fixed record length.
PRIMARY KEY : username
RECORD LENGTH : 32

FIELD NAME	TYPE	DESCRIPTION
user_name source test_id type	char*15 char*8 char*8 char*1	User accessing database system. Source last accessed by user. Test last accessed by user. Extension type last accessed by user.

FDL FILE FOR USER_LOG.LOG

```
TITLE
        "File Name : DBDISK: [DBSE] USER.LOG"
IDENT
        " 9-AUG-1990 14:21:54
                               VAX-11 FDL Editor"
SYSTEM
        SOURCE
                                 VAX/VMS
FILE
        ALLOCATION
                                 10
                                 yes
        BEST TRY CONTIGUOUS
        BUCKET SIZE
        CLUSTER SIZE
                                 5
        CONTIGUOUS
                                 no
        EXTENSION
                                 5
        GLOBAL_BUFFER_COUNT
                                 0
                                 "USER_LOG.LOG"
        NAME
        ORGANIZATION
                                 indexed
        OWNER
                                 [200,1]
        PROTECTION
                                 (system:RWED, owner:RWED, group:RW, world:RW)
RECORD
        BLOCK SPAN
                                 yes
        CARRIAGE_CONTROL
                                 none
        FORMAT
                                 fixed
        SIZE
                                 32
AREA 0
        ALLOCATION
                                 10
        BUCKET_SIZE
                                 2
        EXTENSION
                                 5
KEY 0
        CHANGES
                                 no
        DATA KEY COMPRESSION
                                 yes
        DATA_RECORD_COMPRESSION yes
        DATA_AREA
                                 ۵
                                 100
        DATA FILL
        DUPLICATES
                                 no
        INDEX_AREA
                                 0
        INDEX COMPRESSION
                                 yes
                                 100
        INDEX FILL
                                 0
        LEVEL1 INDEX AREA
        NAME
        NULL KEY
                                 no
        PROLOG
                                 3
                                 15
        SEGO_LENGTH
        SEGO_POSITION
                                 0
        TYPE
                                 string
```

TEST CHANGE LOG FILE

This file records modifications made to the VALUE file data cells.

Nomenclature: "source" is the facility or other data source.

"test" is the test identifier.

FILENAME : [DBSE.source.test]test.CHL*

TYPE : Indexed with variable record length.

PRIMARY KEY : label//offset

RECORD LENGTH : Maximum of 20544 bytes

FIELD NAME	TYPE	DESCRIPTION
mod_label ch_offset mod_offset ch_field_type ch_field_len mod_original num_mods mod_user mod_value mod_date mod_time	char*12 char*8 Integer*4 char Integer*2 byte(12) Integer*2 char*12 byte(12) char*9 char*8	Label name of cell modified. Offset value of cell modified - character form. Offset value of cell modified - integer form. Data type of cell modified. Number of bytes in data cell. Byte array containing original cell value. Number of modifications made to data cell. User name of process that modified data cell. Array of modification values. Date that cell was modified. Time that cell was modified.

FDL FILE FOR TEST CHANGE LOG

TITLE	"File Name : DBDISK:[DBS	e]CHANGE_LOG.FDL"
IDENT	"21-SEP-1990 11:04:56	VAX-11 FDL Editor
SYSTEM	SOURCE	"VAX/VMS"
FILE	ORGANIZATION	indexed
RECORD	O.E.G.2	none variable 20544
AREA 0		51 yes 48 48
AREA 1	BEST_TRY_CONTIGUOUS	48 yes 48 48
KEY 0	CHANGES DATA_AREA DATA_FILL DATA_KEY_COMPRESSION DATA_RECORD_COMPRESSION DUPLICATES INDEX_AREA INDEX_COMPRESSION INDEX_FILL LEVEL1_INDEX_AREA NAME PROLOG SEGO_LENGTH SEGO_POSITION TYPE	

INCLUDE FILE FOR TEST CHANGE LOG

0 0 0

CH_LOG_REC_DEF.INC

c This file defines the records in the change log files.
c A change log file is created for a test whenever a data cell in the c value file is modified.

parameter	max_mods =	1000	!maximum mods/cell
character 1 1 1 1 1	mod_label ch_offset ch_field_type, mod_user (max_mods) mod_date (max_mods) mod_time (max_mods)	*12, *8, *12, *9,	
integer*4	mod_offset		cell offset!
integer*2 1	<pre>num_mods, ch_field_len</pre>		<pre>!number of cell mods. !cell byte size</pre>
byte 1	mod_original (12), mod_value (12,max	x_mods)	!original value !array of mod. values
common /ch_log/ 1 1	<pre>mod_label, ch_offset, mod_offset, mod_original, num_mods, ch_field_type, ch_field_len, mod_user, mod_value, mod_date, mod_time</pre>		

LABEL FILE RECORD PARAMETER FILE

FILENAME : [DBSE.source.test]test.PRM*

TYPE : Sequential with fixed record length.

RECORD LENGTH : 62 bytes

FIELD NAME	TYPE	DESCRIPTION
name position length d_form description	char*12 Integer*2 Integer*2 char char*40	

INCLUDE FILE FOR LABEL FILE RECORD PARAMETER FILE

```
c File name : includes:parameter_def.inc
                     max_fields = 500
max_record = 2000
                                                           !max fields per label
        parameter
        parameter
                                                           !max label rec. size
        parameter
                     lablen = 12
                                                           !length of label name
C
        character
                         file_nm
                                                  *44,
                                                           !.IND file name
                                                  *12,
        1
                         key_name
                                                           !key field name
        1
                         field_name (max_fields) *12,
                                                           !parameter field names
        1
                         field_form (max_fields),
                                                           !parameter data types
        1
                         key_form
                                                           !key data type
C
        byte
                         label_rec
                                          (max_record)
                                                           !label file record
C
        integer*2
                         record len,
                                                           !label file rec. len.
        1
                         key_size,
                                                           !size of key field.
        1
                         num_fields,
                                                           !# of parameter fields
        1
                         field pos
                                          (max fields),
                                                           !parameter field
                                                           !positions.
        1
                         field_size
                                          (max_fields)
                                                           !parameter field
                                                           !lengths - bytes.
C
        common /parameters/ file_nm, key_name, field_name, record_len,
                             key_size, num_fields, field_pos, field_size,
        1
                             field_form, label_rec
```

SET FILE

FILENAME : [DBSE.source.test]test.SET*

TYPE: Indexed with variable record length.

PRIMARY KEY : set_name RECORD LENGTH : Variable

FIELD NAME	TYPE	DESCRIPTION
set_name set_ext_num set_ext num_units set_var_name label_name label_val	char*12 byte byte integer*2 char*12 char*12 real*4	Unique set name. Extended record number. Extended record flag. Number of labels for this set. Array of X,Y,Z parameter names. Array of labels to be included in set. Array of X,Y,Z parameter values.
•	_	

Pairs of label_name/label_val are repeated for "num_units" labels.

FDL FILE FOR SET FILE

```
TITLE
       "File Name : DBDISK:[DBSE]SET.FDL"
        "21-SEP-1990 12:24:56
IDENT
                               VAX-11 FDL Editor"
SYSTEM
        SOURCE
                                 VAX/VMS
FILE
        ALLOCATION
                                 60
        BEST_TRY_CONTIGUOUS
                                no
        BUCKET_SIZE
                                28
        CLUSTER SIZE
                                5
        CONTIGUOUS
                                no
        EXTENSION
                                0
        FILE MONITORING
                                no
        GLOBAL BUFFER COUNT
                                0
        NAME
                                n n
        ORGANIZATION
                                indexed
        OWNER
                                PROTECTION
                                (system: RWED, owner: RWED, group: RWED, world: RWED)
RECORD
        BLOCK SPAN
                                yes
        CARRIAGE_CONTROL
                                none
      FORMAT
                                variable
        SIZE
                                24000
AREA 0
        ALLOCATION
                                58
        BUCKET SIZE
                                28
        EXTENSION
                                0
KEY 0
        CHANGES
                                no
        DATA KEY COMPRESSION
                                yes
       DATA_RECORD_COMPRESSION yes
       DATA AREA
                                0
       DATA FILL
                                100
       DUPLICATES
                                по
        INDEX AREA
        INDEX COMPRESSION
                                yes
       INDEX_FILL
                                100
       LEVELI_INDEX_AREA
                                0
       NAME
                                ...
       NULL KEY
                                no
       PROLOG
                                3
       SEGO LENGTH
                                12
       SEGO_POSITION
                                0
       TYPE
                                string
```

INCLUDE FILE FOR SET FILE

```
c File name : INCLUDES:set_rec_def.inc
С
                      max_set_labels = 2000
       parameter
C
  There are 24 bytes per label:
C
С
c label_name : 12 bytes
c value_array : 3-4 byte REALs
       parameter
                       max_set_store = 1327
                                                      !max sets per rec.
       parameter
                       set_header_size = 52
                                                      !set record header size
       character
                       set_name
                                                    *12, !name of set
                       label_name (max_set_labels) *12,!name of label
       1
                       set_var_name (3)
                                                    *12,!X,Y, Z parameter
                                                        !fields
       1
                       hold_set_var_name (3)
                                                   *12 !temp buffer
       byte
                       set_ext,
                                                        !extended record flag
                       set_ext_num
                                                       !extended record num.
       integer*2
                       num_units,
                                                       !num labels in set
       1
                       hold_num_units
                                                       !temp buffer
       integer*4
                       set_rec_len
                                                       !set record length
       real*4
                       label_val (3,max_set_labels)
                                                       !X,Y, Z parameter
                                                       !values.
       common /set_par/ set_name, num_units, set_var_name, label_name,
       1
                        label val
```

VALUE FILE

FILENAME : [DBSE.source.test]test.VLU*

TYPE : Indexed with variable record length.

PRIMARY KEY : dbse_key//ext_number

RECORD LENGTH : Variable

FIELD NAME	TYPE	DESCRIPTION
dbse_key	C12	Label of data record.
ext number	В	Extended record number.
extension	В	Extended record flag.
case label	C12	Version of label to be displayed.
rec field form	Cl	Data type of data cells for this record.
rec field size	12	Number of bytes per data cell for this record.
cells loaded	I4	Number of data cells in this record.
min buf	В	12-byte array containing minimum value loaded.
max buf	В	12-byte array containing maximum value loaded.
dbs rec len	I4	Number of bytes in cell data array.
dbse_rec	В	Array of bytes containing cell data.

FDL FILE FOR VALUE FILE

TITLE "File Name : DBDISK: [DBSE] VLU.FDL" IDENT "18-JUN-1990 10:26:38 VAX-11 FDL Editor" SYSTEM "VAX/VMS" SOURCE FILE ORGANIZATION indexed RECORD CARRIAGE CONTROL none FORMAT variable SIZE 31912 AREA 0 ALLOCATION 5000 BEST_TRY_CONTIGUOUS yes BUCKET SIZE 63 EXTENSION 1000 AREA 1 ALLOCATION 63 BEST_TRY_CONTIGUOUS yes BUCKET_SIZE 63 EXTENSION 63 KEY 0 CHANGES no DATA_AREA 0 DATA_FILL 100 DATA KEY COMPRESSION no DATA RECORD COMPRESSION no DUPLICATES INDEX_AREA INDEX_COMPRESSION no INDEX_FILL 100 LEVEL1_INDEX_AREA 1 PROLOG 3 SEGO LENGTH 13

0

string

SEGO POSITION

TYPE

INCLUDE FILE FOR VALUE FILE

```
c File name : INCLUDES:dbse_rec_def.inc
                                                       !MUST HAVE SAME
                       max_frames = 9800
        parameter
                                                        !VALUE AS sl_num_rrefs
                                                        !frames allowed
                        max_dbse_record =
        parameter
                                                        !maximum record length
                        max_frames * 13
                        max_store_size = 31850
                                                       !max bytes per rec.
        parameter
                                                        ! the dbse header size
                                        - 61
                        header_size
        parameter
                                        - 2000
                       max_labels
        parameter
                                        - 1000
                       max_sets
        parameter
                                                        !data storage format
                        rec_field_form,
        character
                                        *12,
                                                        !data access key
                        dbse key
                                        *12,
        1
                        case label
                                        *12,
                                                        !char min
                        c min
        1
                        c_max
                                        *12
                                                        !char max
        1
                       dbse_rec (max_dbse_record),
                                                        !database record
        byte
                        extension,
        1
                        ext number,
        1
                                                         !min value buffer
                        min buf (12),
                                                        !max value buffer
                        max_buf (12)
!size of field
                        rec_field_size,
        integer*2
                        i2_min,
                                                        !2 byte int min
        1
                                                        !2 byte int max
                        i2_max
                        dbse_rec_len,
cells_loaded,
        integer*4
        1
                                                        !4 byte int min
        1
                        i4_min,
                                                        !4 byte int max
        1
                        i4_max
                                                         !4 byte real min
        real*4
                        r4 min,
                                                        !4 byte real max
                        r4_max
                                                         !8 byte real min
                        r8_min,
        real*8
                                                         !8 byte real max
                        r8 max
        1
                        dbse_data_acquired
        logical*1
        equivalence ( c_min, min_buf )
        equivalence ( i2_min, min_buf )
        equivalence ( i4_min, min_buf )
        equivalence ( r4_min, min_buf )
        equivalence ( r8_min, min_buf )
         equivalence ( c_max, max_buf)
         equivalence ( i2_max, max_buf )
         equivalence ( i4 max, max_buf )
         equivalence ( r4_max, max_buf )
         equivalence ( r8_max, max_buf )
         common /dbse_par/ dbse_key, case_label,
                dbse_rec_len, rec_field_size, rec_field_form,
                 extension, ext_number, cells_loaded, min_buf, max_buf,
         1
                dbse rec, dbse_data_acquired
```

MAXIMUM RELATIVE POSITION (MRP) FILE

FILENAME : [DBSE.source.test]test.MRP*
TYPE : Sequential - single record.
RECORD LENGTH : 4 bytes

FIELD NAME	TYPE	DESCRIPTION
MRP	14	Maximum relative position. Defines the current number of values in the
.÷		VALUE file (test id.VLU*).

TEST REPORTS

The test reports are named in the report file name extension. For example, if a pre-test report was generated for TEST 0016 in the AFD facility it would be named 0016.TPRE-TEST. The report name follows ".T" in the report file extension. The reports can only contain ASCII text and the records must not exceed 80 characters each.

FILENAME : [DBSE.source.test]test.T<report_name>*

TYPE : Sequential with variable record length.

RECORD LENGTH : Variable

LABEL FILE

FILENAME : [DBSE.source.test]test.IND*

TYPE : Indexed with fixed record length.

PRIMARY KEY: engr_label RECORD LENGTH: Defined in the corresponding .PRM* parameter file.

FIELD NAME	TYPE	DESCRIPTION
engr_label case_label datatype fldlen data_segment	C12 C12 C1 I2	Uppercase label name used as key. Version of label name to be displayed. Data storage format (R,C,I). Number of bytes required for data field. Used to tag data retrieval path.

These are the required fields. Other data and fields are added to the record as specified in the corresponding .PRM* parameter file.

TEST GEOMETRY FILE

FILENAME : [DBSE.source.test]test.GEO

TYPE : Indexed with fixed record length.

KEY : LCS

RECORD LENGTH : 102 Bytes

FIELD NAME	TYPE	DESCRIPTION
lcs	R4	Local coordinate system number.
rcs	R4	Reference coordinate system number.
scale .	- R4	Local scale = lcsdimension/rcsdimension.
type(3)	C1	Type of local system :
		type(1) = L for left-hand Cartesian.
		<pre>= X, Y, Z for cylindrical axis</pre>
		= other defaults to right-hand Cartesian.
		type(2) and type(3) are for cylindrical systems.
		type(2) = X , Y , or Z indicates the axis of origin
		for the cylindrical angle.
		type(3) = R for right-hand cylindrical angle.
		L for left-hand cylindrical angle.
origin(3)	R4	If rcs is Cartesian, these are DX, DY DZ.
		If rcs is cylindrical, these are axial distance,
		angle, and radius.
rorder(3)	Cl	Order of axis rotations used to align the rcs
		to the lcs. YZX would indicate rotations about
. 495	••	Y, then Z, and finally X.
rot (3)	C1	Rotation angles in the order specified by rorder.
		Signs of rotations are based on the right-hand
	060	sense.
geocom	C60	Descriptive comment for the lcs

SESSION LOG FILE

FILENAME : <user-specified>.XSL

TYPE: Sequential with variable record length.

RECORD LENGTH: Variable - maximum 80 bytes.

For a complete description of the session log file see "APPENDIX D".

RS/1 VALUE TABLE META FILE

FILENAME : <user-specified>.RS11
TYPE : Sequential with variable record length.

RECORD LENGTH : Variable

FIELD NAME	TYPE	DESCRIPTION
RECORD 1:	C6	Number of rows represented by the number of records in the file (= number of label names).
RECORD 2:	C6	Number of columns represented by the fields in the records (= number of data values plus 1 for the label).

Records 3 and 4 are output only if sets were chosen.

The purpose of records 3 and 4 is to provide a desired table spacing.

The record numbering in descriptions of files .RS12 and .RS13 assume that these two records are used.

C12	The entry "SET" provides a column in the resulting table for set names.
C1	A tilde is used as a data field separator.
C12 C1	Data value. Should look "EMPTY" to RS/1. Data field separator.
C12	Data = "EMPTY".
•	Repeat empty data to length of other
•	data records (record 5 and subsequent).
	C1 C12 C1

RS/1 VALUE TABLE META FILE (Concluded)

RECORD 4:		
label	C12	The entry "PARAMETER" provides a column in
		the table for set plotting parameter names.
# #	Cl	Data field separator.
data	C12	Data value. Should look "EMPTY" to RS/1.
R 🚙 🖻	C1	Data field separator.
data	C12	Data value = "EMPTY".
•	•	•
	•	Repeat empty data to length of other
•		data records (record 5 and subsequent).
•	•	
RECORD 5:		
label	C12	Name of first label selected.
n~u	C1	Data field separator.
data	C12	Data value.
H H	C1	Data field separator.
data	C12	Data value.
•	•	
•		Repeat data values to the length
-	•	of the selected data.

RECORD 6 and subsequent records : Repeat record 5 for all selected labels.

RS/1 SET TABLE META FILE

FILENAME: <user-specified>.RS12
TYPE: Sequential with variable record length.
RECORD LENGTH: Variable

FIELD NAME	TYPE	DESCRIPTION
RECORD 1:	C6	Number of rows represented by the number of records in the file (= number of set names).
RECORD 2: columns	C6	Number of columns represented by the number of fields in the records (= number of label names in table .RS11 plus 2 for the "SET" and "PARAMETER" columns).

RECORD 3 and subsequent records.

label	C12 C1	Set name. Data field separator.
parameter	C12 C1	Set plotting parameter name, e.g. THETA. Data field separator.
data	C12	Plotting parameter data value corresponding to the label in record 3 of file .RS11, or an "EMPTY" indication if the label was not entered as part of a set.
n _ n	Cl	Data field separator.
data	C12	Plotting parameter data value corresponding to the label in record 3 of file .RS11, or an "EMPTY" indication if the label was not entered as part of a set.
n n	Cl	Data field separator.
•	:	Repeat data values to equal the number of labels entered in table .RS11.
•		

RS/1 LABEL TABLE META FILE

FILENAME: <user-specified>.RS13
TYPE: Sequential with variable record length.

RECORD LENGTH : Variable

FIELD NAME	TYPE	DESCRIPTION
RECORD 1:	C6	Number of rows represented by the number of records in the file (= number of label names plus 1 for the header line from record 3).
RECORD 2: columns	C6	Number of columns represented by the number of fields in the records (= number of fields in the TEST_ID.IND file).
RECORD 3: field1 "~" field3	C12 C1 C12	First field name in the TEST_ID.PRM file. Data field separator. Third field name in the TEST_ID.PRM file.
	•	Repeat order of fields described in the TEST_ID.PRM file to serve as headers for the data to be provided in subsequent records.

RS/1 LABEL TABLE META FILE (Concluded)

FIELD NAME	TYPE	DESCRIPTION
RECORD 4:		
data	C12	The value of the label name from record 5 of the .RS11 file.
n _ n	C1	Data field separator.
data	C?	The value of the second field in the TEST_ID.IND file for the label in the field.
	ield length ": ach test and :	?" indicates that the field length will vary field.
≈ ≈ #	Cl	Data field separator.
data	C?	The value of the third field in the TEST ID.IND file for the label in the field.
# #	C1	Data field separator.
data	C?	The value of the third field in the TEST_ID.IND file for the label in the field.
•	•	•
•	•	Repeat field values to the end of the
•	•	TEST_ID.IND record.

Record 5 and subsequent records : repeat record 4 for the labels from record 6 and subsequent in the .RS11 file.